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The Journal

of the

Maine Medical Association

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MAINE MEDICAL ASSOCIATION

The Ninetieth Annual Session will be held at
The Poland Spring House, Poland Springs, Maine
June 21, 22, 23, 1942

Volume Thirty-three

January, 1942

Number One

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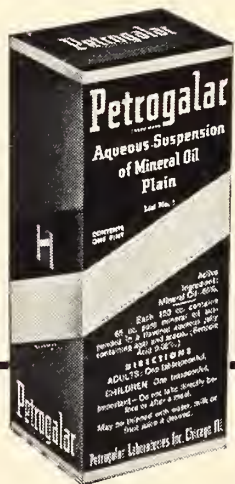
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The Journal of the Maine Medical Association

Volume Thirty-three

Portland, Maine, January, 1942

No. 1

**Medical Queries Answered*

Symposium Conducted by HOWARD T. KARSNER, M. D., JOSEPH H. PRATT, M. D.,

WILLIAM B. DAMESHEK, M. D.

Edited by J. GOTTLIEB, M. D.

QUESTION: *A patient enters the hospital in a comatose condition—what laboratory examinations do you feel are necessary to be carried out on such a patient?*

ANSWERS:

DR. PRATT: One would first think of diabetic coma or uremia, and an examination of the urine (catheterized specimen) would be in order. If I found sugar in the urine, I would at once have an examination of the blood for sugar; if however, there was no sugar, and the patient had albumin, casts, and the specific gravity was low, it would be very suggestive of uremia and I would want to determine the N. P. N. With the specific gravity between 1.010 and 1.012, I would make a tentative diagnosis of uremia; if the urine were normal and showed no sugar.

DR. DAMESHEK: The first thing to do of course is to try to get a history, then do a physical examination. The laboratory procedures would then depend upon the physical findings—if there was alcohol on the breath, I wouldn't do very much laboratory work. If there was a stiff neck, or signs of paralysis, a

lumbar puncture would be indicated. Other procedures depend upon the findings. If the findings were minimal and we see a man comatose with no stiff neck or signs of paralysis, a specimen of urine should immediately be taken and if diabetes were discovered, a blood sugar and a blood CO₂ combining power might well be done. One other laboratory procedure that might not be amiss, particularly in shock, is that of blood typing.

DR. KARSNER: I am firmly of the opinion that the determination of what laboratory tests should be done should rest with the clinician. As concerns emergency tests in a hospital, the decision should be arrived at by conference between clinician and laboratory man. Each institution probably has its own problems in this connection, but in our own hospital we recognize as emergency procedures, white blood cell counts, hemoglobin and red blood cell counts, blood typing, cross matching and the Kline test for emergency transfusions, blood sugar, carbon dioxide combining power, non-protein nitrogen and urea in the blood, pneumococcus typing by the Neufeld method, determination of quantities

* From the Central Maine General Hospital Teaching Clinic, September 5, 1941.

of sulfonamide drugs and in certain circumstances where it is desired to coordinate bacterial cultures with the time of a chill, we recognize such blood cultures as emergencies.

DR. GOTTLIEB: The question has already been adequately answered. A large number of laboratory examinations have been mentioned and I trust that no one interprets this list as essential in each case admitted in the state of coma and proceeds to order all these on the theory of being thorough. This is a tendency that has been developed by fortunately only a few clinicians and in my opinion indicates a lack of understanding of the value of these tests and even a lesser knowledge of the particular problem presenting itself. As has already been pointed out, each case will demand one or a few of the examinations, but at no time all of them on a blanket order. The closer the clinical impression to the correct diagnosis, the fewer will be the tests required.

DR. HIEBERT: How often should these things be repeated after the first examination?

DR. DAMESHEK: If it is a diabetic coma, it may be necessary to study the blood sugar every three to four hours, or even more frequently.

QUESTION: *Is a blood sugar examination of more or less importance than a urinalysis?*

ANSWERS:

DR. PRATT: I would say that the urinary examination was of more importance.

DR. DAMESHEK: I have handled cases of diabetic coma in the home, with examination of the urine alone. It may be a bit risky, but it can be done.

DR. GOTTLIEB: A single urinalysis is simpler to perform and gives more information than a single blood sugar determination. It tells us what has been happening over a period of hours, rather than what exists at the particular moment when a blood sugar is taken, and for these reasons, I would choose a urinalysis in preference to a blood sugar determination. Moreover, a blood sugar determination can only be performed, generally,

in a hospital laboratory; a procedure which is difficult to repeat outside of the institution where the patient is expected to live the greater part of his life, and during which period the patient is expected to follow his diabetic treatment on the basis of his urinary findings. If that much is expected of the patient, it is not too much to expect of the physician. I grant that during the hospital stay and during the period of stabilization, blood sugars are undoubtedly of great value and in questionable cases of diabetes, blood sugars performed for sugar tolerance determination often determine whether the patient is diabetic or not.

DR. KARSNER: Time may well be saved if the doctor himself examines the urine. Naturally the determination of blood sugar is within the province of the laboratory.

QUESTION: *What is the relation between extensive laboratory requests and basic clinical knowledge?*

ANSWERS:

DR. KARSNER: One of the difficulties of our times is the danger of establishing what a former assistant described as "cash register medicine." He meant by this, the accumulation of data on the basis of many different laboratory tests and the attempt to make a diagnosis on the basis of these tests. This method leaves out of account basic clinical knowledge and basic clinical diagnostic procedures and is likely to do harm to the intimacy of contact that should exist between physician and patient.

DR. DAMESHEK: The more you know about medicine, the fewer laboratory tests you perform. By and large, a doctor cannot make a diagnosis simply by carrying out a lot of laboratory tests and then doing the proper adding and subtracting. The diagnosis is usually made by a careful history and physical examination and by doing a few laboratory tests as indicated. Too many basal metabolisms, too many electrocardiograms, too many X-rays add up the expense to the patient and in a majority of cases are needless.

DR. KARSNER: I believe that the highest compliment I can pay anyone is to say that

he is a good doctor. My idea of a good doctor, however, is not one who will devote his principal attention to determining what laboratory tests can be done. He must make his clinical study of the patient the basis of all other work with that patient. Because of the fact that certain doctors and a good many of the large clinics perform a great many laboratory tests, patients have sometimes come to expect that on the part of their doctors. This seems to be because a patient who has had many laboratory tests thinks that it is a great accomplishment and boasts of the fact to his friends. I am certain that a competent physician can convince his patients that his clinical study is basic and that he determines the laboratory tests that are necessary to establish his diagnosis. It is of course shameful to report that occasionally doctors ask for a large number of laboratory tests, not so much for the study of the case as apparently for the sake of making an impression on their patients.

DR. PRATT: I have been impressed with the neglect of physical diagnosis; especially in diseases of the chest. Our younger physicians are apt to place too little stress on careful palpation and auscultation. They are all too eager to have an X-ray of the chest, and in a large number of cases, an X-ray examination of the chest is unnecessary.

DR. DAMESHEK: There is one thing about laboratory tests. If you yourself have done a great many laboratory tests, then you are better able to discriminate which patient needs what tests. If you yourself have done a good many blood counts, you can tell in which case a blood count is not necessary, or what particular count is necessary.

QUESTION: *What is the lowest level of red blood cells and hemoglobin compatible with life?*

ANSWERS:

DR. DAMESHEK: If you have 5,000,000 red blood cells and 90% hemoglobin and suddenly lose one-half this concentration at the age of 60, you may die very quickly, but if you start with the same number and gradually become anemic over a period of a year, you may get along very well. The lowest

possible level is perhaps 500,000 red blood cells and a hemoglobin of 12-15. In pernicious anemia, counts of 30% hemoglobin with 700,000 red cells are not uncommon. With a bleeding peptic ulcer and a red blood count of 700,000, the hemoglobin would be so low as to be practically incompatible with life.

DR. GOTTLIEB: I might point out that immediately following an acute hemorrhage, no matter how extensive, a red cell or hemoglobin determination is practically of no value. There is neither a fall in the red cells nor in the hemoglobin. This becomes obvious when one thinks of the fact that red cells and hemoglobin are measured in terms of cubic millimeters and that despite the fact that perhaps half of the blood volume may have been lost, the concentration of the remaining 50% is exactly the same. Therefore, an emergency call for a red blood cell count immediately after hemorrhage has no meaning whatsoever.

QUESTION: *Is digitalis indicated in myocardial failure due to coronary occlusion?*

ANSWERS:

DR. PRATT: No.

DR. KARSNER: It seems illogical to me.

DR. DAMESHEK: Don't some cases get right sided failure and congestion of the liver—isn't it good then? But in left sided ventricular failure it wouldn't be useful. If a patient develops rales, it might be worth while.

DR. GOODWIN: Following an acute coronary where the heart is rapid and irregular, what would you use?

DR. PRATT: I think opium in acute heart failure is the most valuable drug to employ.

DR. DAMESHEK: In the case of coronary thrombosis with irregular, rapid heart action, quinidine may be very helpful, and may even prevent dreaded ventricular fibrillation.

QUESTION: *What is a simple, rapid and effective serological test that may be performed on blood donors which may be carried out while they are being typed?*

ANSWERS:

DR. KARSNER: The Kline test.

DR. GOTTLIEB: We do it here because of its simplicity and accuracy.

QUESTION: *What are the effects if any, of inhaling hydrogen sulfide over a period of weeks?*

ANSWERS:

DR. DAMESHEK: Is the Androscoggin River a source of hydrogen sulfide? The effects of this chemical depend upon the concentration. The concentration in Lewiston can't really be very great, or there would be a great deal of nausea aggravated by psychogenic factors. Whether it has any effect otherwise, such as in the development of sulphhemoglobinemia is very, very doubtful. Aesthetically, of course, the odor is by no means desirable.

DR. HIEBERT: The hospital patients feel that it does them harm, especially the patients with tuberculosis, and the psychology factor is important.

DR. KARSNER: I do not know of any information as to the effects on the form or function of the body produced directly by the inhalation of such amounts of hydrogen sulfide as may be present in the atmosphere. Certainly there is a psychological factor that may well be underestimated.

QUESTION: *Is oxygen of any value in congestive heart failure?*

ANSWERS:

DR. PRATT: I should say that there is a distinct value in making the patient more comfortable.

DR. GOTTLIEB: How would you explain the mechanism?

DR. PRATT: I don't know, but if I saw a patient in distress, I would try it empirically.

DR. STEELE: I think it makes the patient more comfortable; they take up more oxygen in the tissues and there is apt to be edema of the alveolar walls and diffusion of the gas in the tissues.

DR. GOTTLIEB: Is it reasonable to assume that they take up more oxygen that way than by air alone?

DR. KARSNER: There is no particular reason for believing that the amount of oxygen in the air determines the capacity of the blood, either of the plasma or the cells, in the absorption of oxygen. Nevertheless, there may be a failure of absorption principally because of the fact that in congestive failure, the rate of blood flow through the lungs is reduced. That would mean an inadequate absorption of the oxygen in the atmosphere that might well be corrected if the concentration of the oxygen of the air inhaled into the lungs were increased by the use of the tent or the catheter. Even the enlargement of the capillaries the result of passive hyperemia does not appear to furnish sufficient area of absorption to compensate for the stagnation of the blood current. The influence of edema within the alveoli is not well understood. It is possible, however, as suggested by Hoover many years ago, that this interferes with the absorption of oxygen less than it interferes with the diffusion of carbon dioxide. Thus, one of the most serious factors in congestive failure is the accumulation of carbon dioxide in the blood.

QUESTION: *Does bacterial endocarditis presuppose a history of rheumatic disease?*

ANSWERS:

DR. KARSNER: This question must be separated as concerns acute bacterial endocarditis and endocarditis lenta, or subacute bacterial endocarditis. It is certainly true that acute bacterial endocarditis may be implanted upon a valve that is otherwise normal. How much the presence of rheumatic disease determines the development of acute bacterial endocarditis is not known, but certainly from our own data it would appear that acute endocarditis occurs more frequently in hearts the seat of other disease than if they were normal. This would not apply to such violent acute forms of endocarditis as those observed with pneumococcal and gonococcal infections. In my own experience, I have never seen a case of subacute bacterial endocarditis implanted on an otherwise nor-

mal valve. There are reports of occasional instances of this sort. It may well be that as pathologists learn more readily to distinguish the stigmata of rheumatic heart disease, this incidence will be reduced. It is said that subacute bacterial endocarditis is implanted upon syphilitic disease of the aortic valves. My associate, Dr. Koletsky, has examined five hearts in which it was supposed that subacute bacterial endocarditis was implanted on syphilitic valvular disease. Critical examination, however, showed that four of these hearts were also the seat of rheumatic disease. This raises the question as to whether or not endocarditis lenta is ever implanted on a valve the seat of syphilitic disease only.

DR. GOTTLIEB: I saw a two-year-old child with acute vegetative endocarditis staphylococcus showing no other cardiac pathology or congenital abnormalities. One case of pneumococcic endocarditis was also on an otherwise normal valve, in a youngster six years old.

DR. KARSNER: Congenital cardiac defects undoubtedly predispose to endocarditis. Examination shows that there is a variable amount of fibrosis. It is possible, therefore, that the fibrosis determines the occurrence of the endocarditis rather than the congenital defect itself.

QUESTION: *Which of the liver function tests are most informative?*

ANSWERS:

DR. DAMESHEK: It is always nice to know if the patient is jaundiced and how much. The bilirubin test is in a sense an indication of liver function; the more bilirubin in the blood, the worse the liver is. In very mild cases of jaundice, one suspects the possibility of cirrhosis of the liver. The excretion tests are generally better in these cases than the other tests. For example, the bromsulphalein excretion test is better here than determination of the cholesterol esters, though the latter may be superior in cases of mild or moderate jaundice. The most sensitive excretion test is that of bilirubin excretion. In this test the same substance is injected into the circulation which the liver excretes normally,

and if it piles up in the blood, there is good evidence of hepatic dysfunction. Thus, if you want to determine the matter of liver dysfunction it should be remembered that you may have to do as many as a half dozen tests before coming to a conclusion.

DR. PRATT: The liver has many functions and there is no test that is wholly satisfactory.

DR. DAMESHEK: The urinary urobilinogen becomes increased in mild hepatic disease. If there is a combination of bile in the urine and increased urobilinogen, hepatic disease is even more likely. If one performs both urine and fecal urobilinogen tests, one's chances of making a definite conclusion are more probable.

DR. GOTTLIEB: I have seen numerous tests within normal ranges in livers diffusely infiltrated with carcinoma. In my experience, the dye tests are of little value. A marked reduction of cholesterol esters is practically diagnostic of extensive liver cell damage as seen in "yellow atrophy."

DR. KARSNER: None of these tests is in itself, diagnostic.

QUESTION: *What is the differential diagnosis between bronchial and cardiac asthma?*

ANSWERS:

DR. PRATT: When seen in an attack, it may be impossible to distinguish between them. We get the same wheezing type of breathing. The differential diagnosis depends on the history and physical examination. We know the clinical history of bronchial asthma as a condition which may develop in early life and last for many years. The cardiac asthma rarely develops before the age of 50 and the patient may have hypertensive heart disease, characterized by sudden onset and dyspnea, with or without wheezing, in a patient who has never suffered from asthma before. Attacks usually come on at night and usually the patient is forced to sit upright, and forced to go to an open window. It may occur in a patient who has had no asthma before, and no shortness of breath previously. Most of these patients die within two or three years.

DR. GREENE: Why do these attacks occur at night?

DR. PRATT: They rarely occur until midnight or after, but the reason for this is not clear.

DR. GOODWIN: Does cardiac asthma come on with exertion?

DR. PRATT: No. Usually the patient is at rest. It is a form of left ventricular failure with pulmonary congestion. There are four clinical types: (1) pure cardiac asthma; (2) cardiac asthma with angina pectoris; (3) cardiac asthma followed by pulmonary edema; (4) dyspnea, pain and pulmonary edema.

DR. DAMESHEK: In treating cardiac asthma, adrenalin may make the heart stop instead of stimulating it. You should sit the patient up in a chair, put tourniquets around the arms and legs and then give your intravenous treatments. These patients want to sit up. Put them in a chair and let their legs hang down.

QUESTION: *Is there any value in administering liver extract in so-called secondary or hypochondriac anemia?*

ANSWER:

DR. DAMESHEK: No, there is not. These patients have an iron deficiency, and all they require is iron. Liver extract is a waste of the patient's money.

QUESTION: *What is the relation between angina pectoris and coronary occlusion?*

ANSWERS:

DR. PRATT: Many cases of severe angina pectoris are due to occlusion of a small branch of a coronary artery. Both are diseases of the coronary artery, resulting in anoxemia of the heart muscle.

DR. KARSNER: It is now generally accepted that the symptoms of angina pectoris depend on anoxemia of the myocardium. This may be an anoxemia due to obliterative disease of the coronary arteries or it may be a relative anoxemia in which the work of the heart is in excess of the capacity of the coro-

nary circulation. Autopsies on cases of angina usually show coronary sclerosis and there are but few cases reported in which this is not true. It seems to me that it is impossible to make a differential diagnosis between angina and coronary occlusion without study of the electrocardiogram but it must be admitted that this is not a final and absolute criterion because even in cases of myocardial infarction the electrocardiogram may not show any material disturbance.

DR. PRATT: There are a great many individuals who have mild angina on slight exertion in which the electrocardiogram is normal. In any case of severe angina, an electrocardiogram should be made.

DR. KARSNER: Patients also may have coronary occlusion with little or no pain.

DR. GOODWIN: Those who do not have pain do have a sense of pressure that doesn't amount to pain.

DR. PRATT: Substernal pressure on exertion is of diagnostic significance in angina.

DR. GOODWIN: Does nitro-glycerin give you any clue?

DR. PRATT: If nitro-glycerin gives relief it tends to confirm the diagnosis of angina.

DR. DAMESHEK: Angina pectoris is a symptom and usually of coronary disease. The term coronary thrombosis might well be dropped as a clinical diagnosis, when what we really mean is myocardial infarction, which may or may not be due to coronary occlusion.

DR. KARSNER: Your patient who has pressure and no pain—does it come on exertion?

DR. GOODWIN: It comes on with exertion.

DR. GOTTLIEB: I have seen many cases of coronary occlusion in which the electrocardiograms were normal. In one case there were fourteen lesions, each occluding a coronary branch and yet the electrocardiograph tracings were all within normal range at various times. Often electrocardiograms indicating occlusion become negative subsequent to the healing process of the myocardium distal to the occlusion with or without recanalization of the vessels. If an occlusion occurs as a slow, progressive process permitting oppor-

tunity for the establishment of a collateral circulation, the electrocardiographic tracing will at no time show any evidence of the occlusion. Of course, acute occlusion is regularly mirrored in the tracing not because of the occlusion, but because of the distally infarcted myocardium.

QUESTION: *Is coronary occlusion most likely to occur during effort or rest?*

ANSWERS:

DR. DAMESHEK: You can frequently dig up a history of violent exertion or excitement.

DR. GOTTLIEB: I am certain that the majority of occlusions occur during rest. In the case mentioned above all the lesions subsequent to the first few occurred during the patient's stay at the hospital. Statistically the greatest incidence is in the early morning hours before rising.

QUESTION: *Is the prognosis better or worse in coronary occlusion in the presence of cardiac hypertrophy?*

ANSWERS:

DR. KARSNER: It is not as good.

DR. STEELE: I agree that it is not as good.

DR. KARSNER: The cardiac hypertrophy in cases of coronary disease is due to some factor which increases blood pressure, such as essential hypertension, or chronic renal disease. Studies in our Institute indicate clearly that hypertrophy is likely to be greater in hearts the seat of coronary sclerosis than in hearts that show little or no such disturbance. Unquestionably a heart the seat of hypertrophy has less reserve than a normal heart. Thus the presence of hypertrophy is definitely unfavorable as to outlook.

DR. GOTTLIEB: We have, I believe, worked out a satisfactory technique for the study of coronary volume in relation to the myocardial mass. On the basis of the hearts studied it may be deducted that the larger the heart the greater the coronary bed. Relatively, however, the larger heart is proportionately anoxemic and therefore suffers to a greater degree than a smaller heart whose circulation is to begin with more efficient.

QUESTION: *What is the relative prognosis between anterior and posterior coronary occlusion?*

ANSWERS:

DR. PRATT: I should think the prognosis would depend in any case on the amount of heart muscle that was involved in the infarct.

DR. STEELE: In a general way, if a person survives the immediate episode, the scars when they form are less likely to get cases of cardiac failure and less cases of cardiac asthma.

DR. PRATT: Less of the posterior.

DR. KARSNER: It must be remembered that the coronary supply to the posterior aspect at the base of the left ventricle varies. Usually it comes from the left circumflex branch but quite frequently it also comes from the terminals of the right coronary.

DR. GOTTLIEB: The circulatory pattern is of most importance. The type in which there are free anastomosis at the intraventricular septum offers the best prognosis.

DR. KARSNER: Jane Sands Robb has given a careful description of the arrangement of cardiac muscle in spiral bundles. Of these, the deep bulbo-spiral muscle which encircles the mitral orifice is obviously of the utmost importance. She has found experimentally and on the basis of anatomical studies in man that occlusion of the arterial supply to this bundle is rapidly fatal. The data as to other of the spiral bundles is not complete as yet. Before any of this can be accepted, confirmation must be obtained.

QUESTION: *Of what consequence are the small, thin, smooth-walled cysts encountered in the ovary?*

ANSWER:

DR. KARSNER: Retention cysts frequently accompany the thickened capsule of the ovaries and can be confused with the pain of appendicitis.

QUESTION: *What procedure is indicated in suspected Paget's disease of the nipple?*

ANSWER:

DR. KARSNER: The well developed case of Paget's disease is one of carcinoma either of the epidermis, the duct of the nipple, or both. Ordinarily there is an associated carcinoma of the mammary gland but there are cases on record in which metastasis to the axillary lymph nodes has occurred without involvement by carcinoma of the mammary gland. Thus it would appear that carcinoma of the nipple in the form of Paget's disease is to be managed as carcinoma anywhere else in the breast. As a rule, the clinical diagnosis of Paget's disease is not exceedingly difficult. Nevertheless, there are cases of eczema of the nipple and of crusty nipple that may be confusing. If the clinical diagnosis is really doubtful, I think the diagnosis can be made by biopsy of the nipple.

QUESTION: *What is the relation of an ovary to the development of endometrial hyperplasia?*

ANSWER:

DR. KARSNER: Hyperplasia of the endometrium can be due either to disturbance of circulation of the uterus due to malposition or to overactivity of the ovary. In some cases the production of an excess of internal secretion of the ovary can be attributed to tumors, such as the granulosa-cell tumor, but there are certain cases in which the ovary shows no microscopical lesion.

QUESTION: *How can one differentiate chemically a masculinizing tumor of the adrenal from one of the ovary? Is there any relation between the two?*

ANSWER:

DR. KARSNER: Clinically the manifestations of both are similar if not identical. A study of the output of androgenic substances by Friedgood in the *Journal of Clinical Investigation* for July, 1941, indicates that in the adrenal masculinizing tumors there is an increased output of dehydroxyisoandrosterone which ordinarily constitutes only a small fraction of the androgen content of the urine. That this will ever serve as a distinguishing feature between tumors of the adrenal and

tumors of the ovary, masculinizing in property, is still uncertain.

QUESTION: *What are the effects of chemotherapy on kidney function—that is, are the blood levels of uric acid, etc. elevated?*

ANSWERS:

DR. DAMESHEK: With the sulfonamide drugs, one should always be on the lookout for renal failure, for occasionally the tubules become plugged up and the N. P. N would then tend to go up.

DR. KARSNER: My associate, Dr. Joseph M. Hayman, has shown that if the kidneys are the seat of some insufficiency, the administration of the sulfonamide drugs leads to an increased concentration of the drug in the blood and also to augmentation of the renal insufficiency. Thus, if time permits, a determination of renal function should be made.

QUESTION: *What is the present status of Colloidal Gold therapy in rheumatic arthritis? Vaccines?*

ANSWERS:

DR. DAMESHEK: Colloidal Gold has been given in many diseases, including tuberculosis, lupus erythematosus, and arthritis. Disorders of the bone marrow may well develop under treatment with this drug (leukopenia, anemia, thrombopenia). I personally doubt that it has any real value in rheumatoid arthritis.

DR. PRATT: I know of some cases of rheumatoid arthritis in which favorable results have been obtained.

QUESTION: *What is the abnormal physiology which results in total collapse of one or more lobes of the lung with no evidence of obstruction?*

ANSWER:

DR. KARSNER: The number of autopsies on patients with massive pulmonary atelectasis is so small that an anatomical background for the condition cannot be satisfactorily provided. Nevertheless there appears to have been in some of these cases obstruc-

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*President's Address**

ALLAN CRAIG, M. D., President, Maine Hospital Association, Bangor, Maine.

The past year has been one of national anxiety and apprehension, which has been reflected in every community and in every institution throughout the country. Never has such a world emergency faced our people in every walk of life. The practical patriotism of each citizen and each institution is being put to test, and the period of strain is far from over, in fact, we have but passed through its preliminary phase. What the coming year may bring to us none can foretell, but of one thing I am sure — the hospitals of Maine will not be found wanting in the performance of their full duty to the people and the State whom they serve.

This has been a legislative year in Maine, and we in the hospital field and our people at large have good reason to be grateful for the consideration given us by the Maine Legislature and our new Governor. No doubt we often fail to appreciate the difficulties and intricate problems which have to be met at each session of our State Legislature. Increased appropriations for various purposes are in constant demand. These increases in time create a necessity for increased state revenue, which frequently brings up the problem of increased taxation, and then the shoe pinches. It is apparent, therefore, that unreasonable demands can not be given consideration and must be eliminated, but sound necessities for the welfare of our people can not be overlooked, especially if they are adequately demonstrated.

Your Legislative Committee this past year first of all presented the hospital problem, with relation to State Aided cases, to the Commissioner of Health and Welfare, Mr. Joel Ernest. Mr. Ernest was most considerate and coöperative, with the result that the request of the Committee for an increased appropriation was included in the budget of the Health and Welfare Department. The problem was then presented to both the Budget Committee and the Appropriations

Committee during their hearings and was also placed before the Governor, with the result that the State Aid appropriation was increased from two hundred thousand dollars per year to three hundred thousand.

It is our hope that this increase will help to relieve the burden on our hospitals and will also permit more hospitals to admit and care for state-aided patients. It is well to call to mind, at this time, that the hospital is permitted to collect from the patient, in part payments, or otherwise, the difference between what the State pays for state-aided patients and \$3.00 per day. A continuous effort to make this extra collection will unquestionably bring some results and should be undertaken by the hospitals.

The problem of medical and surgical care of state-aided patients is one which I feel will have to be worked out by each individual hospital and its medical staff. Many hospitals have in their requirements for admission to the medical staff a provision that each member of the staff shall be responsible for his due share of the free work of the institution.

During the hearing on the State Aid Appropriation, it was amply demonstrated that we in the hospitals of Maine are in need of a more or less uniform system of accounting in our institutions. May I draw to your attention at the present time the fact that the American Hospital Association has gotten out a manual on Accounting for both large and small hospitals. I would urge strongly that each hospital procure a copy of this manual and follow it as closely as possible. When hospitals seek or accept public funds, they must have a reliable means of demonstrating business procedure and their handling of expenses and income. There is no excuse for any looseness or lack of organization in this regard. I readily admit that accounting systems can be so intricate and cumbersome as

Continued on page 20

* Presented at the annual meeting of the Maine Hospital Association, Lakewood, Maine, August 20, 1941.

The More Common Chemical Values and Their Clinical Interpretations Including Chemotherapeutic Levels

†By JULIUS GOTTLIEB, M. D., F. A. C. P., and MILAN CHAPIN, M. D., Ph. D.

Normal	Increased in	Decreased in
N. P. N. 25-40 mg. %	Renal Insufficiency Metallic Poisoning (Hg.) Dehydration Prolonged Infectious Fever Intestinal Obstruction Hyperemesis Adrenal Insufficiency Hemorrhage (G. I. Tract) Cardiac Failure Coronary Thrombosis Shock States	Diuresis Diabetes Mellitus Diabetes Insipidus
B. U. N. 10-15 mg. %	Same as above Rises at a faster rate than N. P. N. in Hepato-Renal Syndrome	Severe Hepatic Insufficiency Eclampsia 15-40% of N. P. N. Nephrosis Low Protein Diet Chronic Wasting Diseases Amyloidosis May be low in Pregnancy
Urea N:N. P. N. 0.35 — 0.50	Renal Insufficiency	Hepatic Insufficiency Acute Yellow Atrophy Poisoning (P, CCl ₄ , CHCl ₃) Eclampsia
Uric Acid 2-4 mg. %	Pregnancy (early rise in Toxemias) Gout Nephritis Leukemia Excessive Tissue Destruction (burns) Poisoning (Pb., Hg.) May be increased in Pneumonia, in the Newborn, and in Starvation Characteristic of Beginning Renal In- sufficiency	
Total Protein 6-8 gms. %	Multiple Myeloma Lymphogranuloma Inguinale Boeck's Sarcoid Dehydration Kala Azar Schistosomiasis	Acute Nephritis Nephrosis with Inversed A-G Ratio Severe Hepatic Insufficiency
Creatinine 1-2 mg. %	Last to Rise in Marked Renal Insuffi- ciency May be increased in Severe Intestinal Obstruction of Pregnancy	
Glucose 80-120 mg. %	Diabetes Mellitus Hyperthyroidism Early Acromegaly Increased Intracranial Pressure Infections	Hypothyroidism Addison's Disease Pancreatic Adenoma or Carcinoma of Islet Tissue Late Acromegaly Pernicious Vomiting Severe Hepatic Insufficiency Starvation
Chlorides (NaCl) Whole Blood 450-500 mg. % Plasma, Serum 560-630 mg. %	Urinary Tract Obstruction Renal Insufficiency with Edema Hypoproteinemia Anemia Nephrosis	Diabetes Mellitus (with Acidosis) Intestinal Obstruction Prolonged Emesis; Diarrhea Extensive Burns Heat Cramps; Profuse Sweating Tetany (bicarbonate)
Calcium Serum 9-11.5 mg. %	Hyperparathyroidism Hyperproteinemia (as above) Overdosage with Viosterol	Hypoparathyroidism Hypoproteinemia Rickets Nephrosis Uremia Severe Diarrheal States Osteomalacia
Phosphorus Inorganic, acid-soluble Infants 4-6 mg. % Adults 3.5-4 mg. %	Nephritis Pyloric Obstruction Pituitrin Injection (mild) Hypoparathyroidism Bone Fracture Healing	Rickets Osteomalacia Pneumonia After Administration of Insulin, Adrenalin Hyperparathyroidism

Normal	Increased in	Decreased in
Phosphatase (alk.) 2-4 Bodansky Units 4-10 Greene Units	Bone Metaplasia Atrophy Osteomalacia Osteoporosis Paget's Disease Bone Malignancy Obstructive Jaundice	
Cholesterol (total) 150-230 mg. %	Hypothyroidism Obstructive Jaundice Diabetes Mellitus Xanthomatosis (some types) Nephrosis Coeliac Disease	Hepatic Insufficiency Anemias Cachexia
Cholesterol Esters 50-80 mg. %	Some Types of Xanthomatosis without Liver Damage	Severe Liver Cell Damage
CO ₂ Combining Power 55-70 vol. %	Alkalosis (above 75) Excessive Alkali Therapy Pyloric Obstruction Emphysema	Acidosis (below 50) Acid and Acid Salt Therapy Diabetes Mellitus Severe Diarrheas without Vomiting Toxemias of Pregnancy Pernicious Vomiting Eclampsia Uremia Pulmonary Hyperventilation

DIFFERENTIAL IN JAUNDICE

	Normal	Obstructive	Hemolytic	Intrahepatic
Bile in Stool	+	—	+	+
Bile in Urine	—	+	—	+
Urobilinogen	Trace	—	++	++
Van den Bergh	Ind.	Direct	Ind.	Ind.
Quant. Bilirubin	3 mg. - .5 mg.	++	++	++

CHEMOTHERAPEUTIC VALUES

	Sulfanilamide	Sulfapyridine	Sulfathiazole	Sulfadiazine
Optimum Levels (Blood)	8-10	5-10	5-7	8-15
Molecular Weights	172	249	255	250
INFECTION*				
Hemolytic Streptococcus	++++	+++	+++	+++
Pneumococcus	+	++++	++++	++++
Meningococcus	++++	++++	++	++++
Gonococcus	++++	++++	++++	++++
Staphylococcus	+	++	+++	+++
Streptococcus Viridans	+	++	+	++
Friedlander's Bacillus	+	++	++	+++

The tabulated chemical values and their interpretations were originally presented at the clinical-pathological conference of the Maine Medical Meeting held in June, 1940. Because of the number of requests made by clinicians and laboratory workers for copies, the writers feel that the tabulations have a definite value for rapid reference. It is presented with the full knowledge that there can be no short-cut to clinical interpretation of chemical values. The interpretations represent a cross section of opinions obtained by consulting numerous clinical and laboratory textbooks and interviewing investigators particularly interested in certain segments of clinical and laboratory investigations. The writers will appreciate the correction of any errors that may be apparent at this time or become apparent in the future by further investigations in any of the diseases or clinical syndromes included under clinical interpretations.

* From paper by Dr. Plummer, Westchester County Medical Society, White Plains, N. Y., 1941.
† Published from the Laboratory of Central Maine General Hospital, Lewiston, Maine.

Editorials

The Expected Has Happened

Acting in full accord with her brutal Axis partner, controlled by an army cabal possessed of a congenital belief that the ends justify any means the Japanese empire has committed premeditated murder. The United States was betrayed and attacked when every attempt was being made to find an equitable and honorable solution of the differences that existed. There can be but one answer to this hideous threat and implication; *it cannot be.*

What this country will be called upon to sacrifice in way of lives, blood and treasure no one can say, no one with sense will try, but the task must be carried to an end that will mean the utter destruction of men who believe as do the Axis gangsters and the type of government they control. Several facts should give us courage: courage that is not based on wishful thinking or sloppy sentiment. Emphatically we are not a nation helpless to defend itself against attack from within or without, we are not lacking in men and women capable of the heart-breaking task they must assume to save this country from utter ruin and each and every one of us, no matter how humble our position may be in the defense effort, must and will bring to our jobs that determination and loyalty which will preserve for our country and others our ways of life.

Under our form of government, state and national, we have leaders of our own choice. Upon the president of this country rests a responsibility seemingly impossible for one man to bear but that is exactly what he will do and since from him we expect and will obtain a devotion to the task that is his he in turn should be able to look with confidence to no less a fidelity on our part.

No one knows better than the profession of medicine the radical treatment required to destroy malignancy, no matter where situated. A malignancy of the most hideous type has attacked the entire world. We have the men, the science and instruments to utterly eradicate it and eradicated it must be. It is no time for hysteria or confusion and heavy as the task will be on many it will be made lighter if they know, as never before, we stand as a united people with the will and determination to smash for once and all men and governments who would inflict on us the death, misery and destruction they have on others. What will be the task of medicine remains to be seen. The leaders we have delegated to certain duties and positions, men who have accepted assignments of the utmost importance at the request of their profession and the government, can be trusted implicitly to warrant the confidence and faith we have imposed in them.

With Sincere Thanks

With the event of a New Year it is an appropriate and pleasant custom not only to extend greetings for the year to come but thanks to those who have made possible many things we are grateful for in the year now past. At no time, since the present editorial board has conducted the JOURNAL, has there been on file as many instructive and interesting papers for publication as we have at present. Without conceit it may be assumed that authors are finding the JOURNAL a

worth while medium and while it is not for us to say that the editorial content has improved it has at times called for favorable comment. Now and then a member dictates a letter to his stenographer indicating that he is pleased with something on the editorial pages and more power to us. Some even write a personal note—which is gratifying—since editorial boards and editors are no less susceptible to a little praise than others.

All details of publication are, as should be, under direct control of the Council of the association. Last year, ending June, 1941, due to the efficient management of Dr. Carter and Mrs. Kennard the JOURNAL showed a small balance in the black which it is hoped can be duplicated this year. Total advertising contracts are gratifyingly stable but, like many others, priorities for defense will affect us in supplies obtainable and cost. The number of original papers abstracted by other publications and requests to re-print articles in whole or part are more numerous. Since the JOURNAL is also the official organ of the Maine Hospital Association the Council appointed from that closely affiliated body, Dr. Joelle C. Hiebert of the Central Maine General Hospital and Dr. Allan Craig of the Eastern Maine, to the editorial board; welcome they are.

With few exceptions no State Journal can hope, or should it try, to compete with publications of a much wider scope and sphere but every State journal occupies, or should, a more intimate relationship with its own members than those of special or national fields and serves a purpose impossible to them. As we read the various State journals, with their many papers and editorials of

worth while interest, it is the sincere wish and hope of the editorial board—as the JOURNAL goes on—that it will continue to merit your hearty support and coöperation so that an approach can be made to the enviable position held by many of our welcome exchanges. At any time and from any one the board welcomes friendly criticism. If you see, or think you see, wherein the JOURNAL can be bettered your suggestions will be gratefully received.

Many events in the last two years have tried nation after nation to the breaking point. Some have gone down, undermined by treachery or before the onslaught of a hideous mechanized violence the like of which the world has never seen, seemingly beyond reparation. Some have refused to bow their heads to the brutal nation responsible for the cataclysmic misery and horror now the fate of many millions. Is all this “an uncomfortable dream, from which we shall awaken to plod along again in our comfortable middle-class fashion” asked the *New England Journal of Medicine* well over a year ago? Let us give thanks if we have eyes that can see, if we have ears that can hear, before it is too late. It is too late for some.

***Pay Your 1942 State and County Dues Promptly
to Your County Secretary***

Medical Queries Answered—Continued from page 8

tion in the medium-sized bronchi. This does not, however, rule out the possibility that nervous mechanisms may play a part.

QUESTION: *What is the pathology and etiology in lupus erythematosus disseminata?*

ANSWER:

DR. KARSNER: It has now become the fashion to say that when the cause of a disease is not absolutely known that it is upon

an allergic basis. This cannot be proven as concerns lupus erythematosus disseminata. In the skin there is deterioration of the walls of blood vessels together with a massive surrounding infiltrate of mononuclear cells, principally lymphocytes. The same is true in the internal viscera and the effects are often found in the kidney together with a disease of the glomerular tufts. There is likely to be that form of endocarditis which Libman characterized as indeterminate. An excellent description of the pathology is by Klemperer, Pollock and Baehr, *Archives of Pathology*, October, 1941.

*A Call to the Medical Profession**

The nation is at war. The Congress has passed an amendment to the Selective Service Act which will call for registration of every man up to the age of 65 and which will place all men under 45 years of age subject to service at the order of the Selective Service boards.

The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was established by order of the President on October 30. Thus the medical profession itself aids in determining proper distribution of the medical profession in supplying the needs of the armed forces and maintaining medical service to civilian communities, public health agencies, industrial plants and other important needs.

At a meeting of the Procurement and Assignment Service held in Chicago at the headquarters of the American Medical Association of December 18, jointly with the Committees on Medical Preparedness of the American Medical Association, the American Dental Association and the American Veterinary Medical Association, plans were drawn for making immediately available to the United States Army and Navy Medical Corps the names of physicians who wish to be enrolled promptly in the service of the government in this emergency.

On the opposite page is published a blank by which every physician may at once place his name with the Procurement and Assignment Service as one who is ready to serve the nation as the need arises. If you wish to make yourself available for classification, fill out this blank and send it at once to Dr. Sam F. Seeley, Executive Director of the Procurement and Assignment Service. When these blanks are received, they will be classified and checked with the information available in the national roster of physicians at the headquarters of the American Medical Association.

For two thousand and nine counties in the United States, lists have been prepared indicating physicians who are engaged in neces-

sary civilian projects, public health services or educational activities from which they cannot be spared. Shortly the rest of the counties will have such lists available.

In each of the corps areas covering the United States a committee is being established, including representatives of medical, hospital, educational, dental and veterinary activities. In the individual states, committees of medical, dental and veterinarian professions are being established through which the corps area committees will exercise their functions. In each county also local committees will provide accurate information regarding the status of each member of the profession concerned.

The raising of the Selective Service age from 28 to 45 will place a great number of additional physicians in the category of those on whom the nation may call as their services are needed. Estimates indicate that some sixty thousand physicians thus become available for service and that forty-two thousand dentists under the age of 45 also become subject to call. By enrolling with the Procurement and Assignment Service immediately, utilizing the blank on the opposite page, all physicians, but particularly those under 45 years of age, insure to every extent possible assignment to the type of service for which they are best fitted. They avoid thus also the possibility of unclassified service with the United States Army during the period that may be necessary following selection by the Selective Service before the commission can be secured. A physician called by the Selective Service who has not enrolled or who is not on a reserve list obviously serves without a commission during the time that necessarily elapses before a commission is secured. In future issues of *THE JOURNAL* announcements will be made regularly of the numbers of those who enroll and of the extent to which the immediate needs of the Army, Navy and other government agencies are being supplied.

* As published in *The Journal of the American Medical Association*, December 27, 1941.

Enrolment Form for Procurement and Assignment Service for Physicians

DR. SAM F. SEELEY, *Executive Officer*
Procurement and Assignment Service
New Social Security Building
4th and C Streets S.W.
Washington, D. C.

Dear Doctor Seeley:

Please enroll my name as a physician ready to give service in the Army or Navy of the United States when needed in the current emergency. I will apply to the Corps Area commander in my area when notified by your office of the desirability of such application.

Signed _____

1. Give your name in full, including your full middle name:
2. The date of your birth:
3. The place of your birth:
4. Are you married or single?
5. Have you any children? If so, how many?
6. Do you believe yourself to be physically fit and able to meet the physical standards for the Army and Navy Medical Corps?
7. Have you filled out previously the questionnaire sent to all physicians by the American Medical Association?
8. When and where were you graduated in medicine?
9. In what state are you licensed to practice?
10. Do you now hold any position which might be considered essential to the maintenance of the civilian medical needs of your community? If so, state these appointments:
11. Have you previously applied for entry into the Army or Navy Medical Service? If so, state when, where and with what result (if rejected, state why).

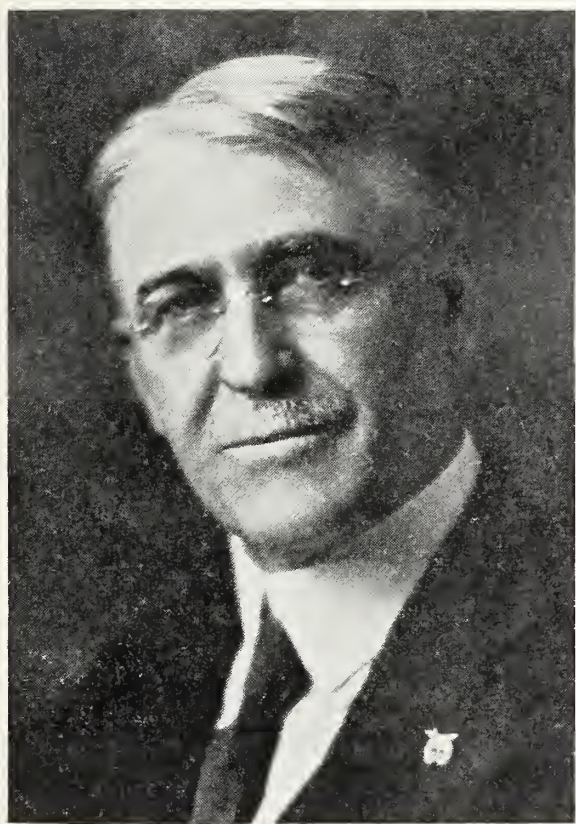
Signature _____

Date _____

Address _____

Necrology

Charles Bradford Sylvester, M. D., 1865-1941



"Born in Casco, Maine, February 12, 1865.

Bridgton Academy, 1884.

Maine Medical School (Bowdoin), 1889.

Special Course in Pathology (Harvard), 1909 & 1910.

House physician and interne at N. Y. Infant's Hospital and Randall's Island Hospital, 1889 & 1890.

General private practice, Harrison, Maine, 1890 to 1918.

Married: Flora D. Bray, January, 1891. Children: Ruth B., Laurance B. (deceased).

Married: Mary F. Whitney, August, 1896. Children: Miriam C., now Mrs. Merrick Atherton Monroe; Allan W., M. D. (deceased). Allan's son, Stanley B., also survives.

United States Army, 1918 & 1919. Commissioned first lieutenant in Medical Reserve Corps, followed by active duty in the Tuberculosis Service, in Camps Oglethorpe and Sevier, and General Hospitals No. 17 and No. 16. Retired by age in 1929 as lieutenant-colonel.

Internist, Portland, Maine, 1919-1941.

Asthma clinician in out-patient department of Maine General Hospital, 1925-29.

Asthma consultant, Maine General Hospital, 1927-1937.

Allergy clinician, Maine Public Health Association, 1925-1930.

President, Oxford County Medical Association, 1908.

President, Cumberland County Medical Association, 1918.

President, Maine Medical Association, 1930.

Received medal from Maine Medical Association in 1939 for fifty years of active medical practice.

Fellow of American College of Physicians, 1931- .

President of Maine Public Health Association, 1940- .

Director for Maine, National Tuberculosis Association, 1936-1940.

Fellow of American Academy of Tuberculosis Physicians, 1937- .

President of Board of Trustees of Bridgton Academy.

State Street Congregational Church Men's Club, Portland Medical Club.

Published articles:

Prevention of Tuberculosis, *Maine Medical Journal*, 1909.

Report on Asthma in Maine, *Maine Medical Journal*, 1929.

Ragweed-Pollen Survey in Maine for 1937, in *New England Journal of Medicine*, 1938, in conjunction with O. C. Durham, Chicago."

Although, in recent years, Doctor Sylvester's talent was applied largely in the fields of tuberculosis and allergy, nevertheless he was a splendid example of that rare type of all-around physician to whom patients in mental or physical distress could and did appeal with assurance that their complaints would receive sympathetic consideration.

He was a man of healthy sensibility of mind, possessed of an elevated understanding and of great goodness of heart, who was much beloved and respected by all who came within the wide sphere of his influence. Far from ever having recourse to questionable or illegitimate means of advancing himself in the world, Doctor Sylvester adopted the following sentiment from Pope:

"But if the purchase cost so dear a price,
As soothing folly or exalting vice,
Then teach me, Heaven! to scorn the guilty bays,
Drive from my breast that wretched lust of praise;
Unblemished let me live, or die unknown,
Oh, grant an honest fame, or grant me none."

Thus did he live to the end which came on the 18th of December, 1941.

E. W. GEHRING.

County News and Notes

Cumberland

The 161st meeting of the Cumberland County Medical Society was held at the Eastland Hotel, Portland, Me., December 5, 1941. The President, Doctor George O. Cummings, called the meeting to order at 8.00 P. M. Following preliminary remarks the speaker of the evening, Doctor R. P. Parsons of the Medical Corps, U. S. N., was introduced. Doctor Parsons' subject was *Some Problems in Naval Medicine*. He described the problems of military medicine as compared with those of civilian life. His paper was discussed by Drs. Simpson, Minor, and Decheco of the Portsmouth Naval Unit, by Commander Adamkiewicz of the Portland Inshore Patrol, and also by Drs. E. H. Drake and Thomas A. Foster. Doctor Parsons also spoke briefly on the subject of Yaws and Medicine in Haiti.

The paper of the evening was followed by the annual business meeting. Annual reports of the Secretary and Treasurer were read and approved. It was the recommendation of the Council that Navy wives and families of local naval personnel be attended by local physicians as private patients, and that the local physicians extend to them whatever courtesy in the way of minimum professional rates they feel is indicated, dependent upon the circumstances of each case. The attention of the members was called to the action of the council in December, 1941, regarding dues of members absent because of duty with the National Defense Program. Also the action taken by the House of Delegates of the Maine Medical Association in session at York Harbor, Sunday, June 22, 1941, as follows: "Members who have entered the service are exempt from the payment of dues while in the service."

The nominating committee, consisting of Drs. W. F. W. Hay, T. A. Foster, and DeForest Weeks, appointed to nominate officers for the ensuing year, reported as follows:

President, Roland B. Moore, M. D., Portland.

Vice-President, N. B. T. Barker, M. D., Yarmouth.

Delegates to the Maine Medical Association: Two years—Drs. Thomas A. Foster, Frank A. Smith, DeForest Weeks; Alternates: Drs. Edward A. Greco, and Louis L. Hills. Delegates one year—Drs. Elton R. Blaisdell, Philip H. McCrum, Clyde E. Richardson, and Richard S. Hawkes. Alternates: Drs. Alvin E. Ottum, and Francis W. Hanlon.

Committee on Public Relations: Drs. Harold V. Bickmore, Theodore C. Bramhall, and Roderick L. Huntress.

Legislative Committee: Drs. Edwin W. Gehring, and Franklin A. Ferguson.

Council: George O. Cummings, M. D.

It was voted that the report of the Nominating Committee be accepted.

Dr. Ralf Martin's application for membership was presented and referred to the Council. Dr. William Monkhouse, of Lovell, was accepted to membership by transfer from the Oxford County Medical Society.

The meeting was adjourned at 10.00 P. M.

An afternoon clinical program, held at the Maine General Hospital, preceded the evening meeting.

Respectfully submitted,

EUGENE E. O'DONNELL, M. D.,
Secretary.

Franklin

The annual meeting of the Franklin County Medical Society was held at the Franklin County Memorial Hospital, Farmington, Maine, on December 1, 1941.

The Secretary-Treasurer's report was read and accepted.

The President, Frank L. Springer, M. D., appointed the following Nominating Committee: Drs. B. L. Arms, James W. Reed, and Lorrimer M. Schmidt.

The following officers were elected for the ensuing year:

President: James W. Reed, M. D., Farmington.

Vice-President: Harry Brinkman, M. D., Wilton.

Secretary-Treasurer: Lorrimer M. Schmidt, M. D., Strong.

Delegate to the Maine Medical Association: George L. Pratt, M. D., Farmington.

Alternate: James W. Reed, M. D.

Board of Censors: Maynard B. Colley, M. D. (1942); Currier C. Weymouth, M. D. (1943); Frank L. Springer, M. D. (1944).

It was voted that the County Society coöperate with the fee schedule as set up by the State Department of Health and Welfare for welfare cases until such a time that changes are made in this schedule by the Council.

LORRIMER M. SCHMIDT, M. D.,
Secretary.

Kennebec

The annual meeting of the Kennebec County Medical Association was held at the Augusta State Hospital, Thursday, December 18, 1941.

Clinical session at 5 P. M. which was a presentation of cases by members of the Staff.

Dinner at 6.30 P. M. was followed by a business meeting.

Minutes of the last meeting were read and approved.

The reports of the Secretary and Treasurer for 1941 were read and accepted.

A. B. Allen, M. D., of Richmond, Me., was admitted to membership by transfer from the Penobscot County Medical Association.

Jos. H. Michaud, M. D., of Waterville, was reinstated to membership, and also Rodney D. Turner, M. D., of Augusta.

It was voted that the fee schedule for State cases as submitted by Mr. Joel Earnest and approved by the Council of the Maine Medical Association be accepted.

A telegram from George Baehr, M. D., Chief Medical Officer, Civilian Defense, Washington, D. C., relative to the establishing of emergency medical field units was read by the Secretary.

The following members were appointed by the Chair to nominate the officers for the ensuing year: C. R. McLaughlin, M. D., Gardiner; George A. Coombs, M. D., Augusta; T. C. McCoy, M. D., Waterville.

They reported as follows:

President: L. Armand Guite, M. D., Waterville.

Vice-President: A. J. Gingras, M. D., Augusta.

Secretary-Treasurer: Frederick R. Carter, M. D., Augusta.

Councilor for three years: Arnold W. Moore, M. D., Mt. Vernon.

Two Delegates to the Maine Medical Association: Ivan E. McLaughlin, M. D., Gardiner; Frank Bull, M. D., Gardiner.

Alternate: M. T. Shelton, M. D., Augusta.

It was moved and seconded that the by-laws be suspended and the Secretary cast one vote for the officers for the ensuing year which was done.

The address of the evening was given by Douglas A. Thom, M. D., Professor of Psychiatry, Tufts Medical School; Consultant in the Massachusetts Division Mental Hygiene; Formerly Director of the Massachusetts Department of Child Guidance Clinics, who spoke on *War Neuroses and Psychoses*, which was based on his experiences in the World War No. 1. He also spoke on medical hygiene of children. This talk was very interesting and instructive.

There were forty members and guests present.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,
Secretary.

Knox

The regular monthly meeting of the Knox County Medical Society was held at the Copper Kettle, Rockland, Maine, on November 18, 1941. The dinner and meeting followed the Staff Clinic which Francis Thurmon, M. D., of Boston, conducted. Many interesting patients were shown, and some difficulties in the way of diagnosis explained.

Doctor Thurmon was guest speaker for the evening and spoke on *Extra-genital Sores*. With the slides which he showed a clear concept of these lesions was given.

P. L. B. Ebbett, M. D., of Houlton, President of the Maine Medical Association, was present and explained the suggested fee schedule for State welfare cases.

The general discussion which followed was very instructive.

A. J. FULLER, M. D.,
Secretary.

Penobscot

The Penobscot County Medical Association held its monthly meeting on Tuesday, December 16, 1941, at the Bangor House, Bangor, Maine.

Leonard G. Miragliuolo, M. D., of 253 Hammond Street, Bangor, was elected to membership.

H. L. Robinson, M. D., of Bangor was appointed to represent the Penobscot County Medical Association in the medical civil defense organization of the State.

Mr. Joel Earnest, Commissioner of Health and Welfare, was present and spoke to the members relative to the proposed fee schedule for State welfare cases.

The paper of the evening was by Myer Saklad, M. D., and his subject was *Choice of Anesthesia in General Practice*.

There were fifty-three present.

Respectfully submitted,

FORREST B. AMES, M. D.,
Secretary.

Piscataquis

A meeting of the Piscataquis County Medical Association was held at Dr. Harvey C. Bundy's residence in Milo, Maine, on November 26, 1941.

Roscoe L. Mitchell, M. D., Director of the State Department of Health and Welfare, gave a very interesting and instructive talk regarding the history of the State Department of Health. He also told us of the many ways one can be helped through the Department.

N. H. NICKERSON, M. D.,
Secretary.

New Members

Androscoggin

Robert A. Frost, M. D., Auburn, Maine.

A. W. Mandelstam, M. D., Lewiston, Maine.

Cumberland

William Monkhouse, M. D., Lovell, Maine. (By transfer from the Oxford County Medical Society.)

Kennebec

Adelbert B. Allen, M. D., Richmond, Maine. (By transfer from the Penobscot County Medical Association.)

Joseph H. Michaud, M. D., Waterville, Maine.

Rodney D. Turner, M. D., Augusta, Maine.

Penobscot

Leonard G. Miragliuolo, M. D., Bangor, Maine.

Coming Meetings

Penobscot

Penobscot County Medical Association, Forrest B. Ames, M. D., Bangor, Secretary.

January 20, 1942, Bangor, Maine.

Speaker: Champ Lyons, M. D., Massachusetts General Hospital, Boston, Massachusetts.

100% Paid-Up Membership for 1942

Piscataquis County Medical Society

Notices

State of Maine

Board of Registration of Medicine

Adam P. Leighton, M. D., Portland, Secretary.

List of successful applicants passing the Maine Medical Board November 12-13, 1941.

Through Written Examinations

Winford C. Adams, M. D., Eastern Maine General Hospital, Bangor, Me.

Leslie William Brownrigg, M. D., St. Stephen, N. B.

William Neil Campbell, Jr., M. D., Boston Lying-in Hospital, 221 Longwood Ave., Boston, Mass.

William Steven Dick, M. D., 1104 31st St., Parkersburg, West Virginia.

Jere Robert Downing, M. D., Kennebunk, Me.

Edward Carlton Dyer, M. D., The Children's Hospital, Boston, Mass.

Francis Hugh Fox, Jr., M. D., Kings County Hospital, Brooklyn, N. Y.

Bela Kaszas, M. D., Menorah Hospital, Kansas City, Mo.

Wilbur Berry Manter, M. D., Rhode Island Hospital, Providence, R. I.

Howard Harold Mintz, M. D., Long Island Hospital, Boston, Mass.

Thomas Michael Mulcahy, M. D., 101 East 74th St., New York City.

Through Reciprocity

Glidden Lantry Brooks, M. D., 300 Main St., Lewiston, Me.

Vincent Gould, M. D., 1300 Maple View Place, S. E., Washington, D. C.

Cilly Hirschberger, M. D., 619 West 144th St., Apt. H, New York City.

John S. Houlihan, M. D., 46 Fern St., Bangor, Me.

Albert C. Johnson, M. D., 635 Lawn Ave., Bridgeport, Conn.

Daniel Dudley Lovelace, Jr., M. D., Gorham, Me.
Eugene Patrick McManamy, M. D., Mayo Clinic, Rochester, Minn.

Marion King Moulton, M. D., West Newfield, Me.
Horace P. Russell, M. D., 81 Fairview Ave., Chicopee, Mass.

Benjamin Lawrence Shapero, M. D., 114 Essex St., Bangor, Me.

Edward Emanuel Sheldon, M. D., 250 West 71st St., New York City.

William A. Ventimiglia, M. D., 16 Lincoln St., Augusta, Me.

Horatio John Young, M. D., Machias, Me.

American College of Physicians

The annual New England Sectional Meeting of the American College of Physicians will be held at Providence, R. I., on Wednesday, January 14, 1942.

President's Address—Continued from page 9

to become a real burden and a detriment, but this can be avoided. Each of our hospitals can easily set up an informative and simple system which will be of inestimable value, not only to the Trustees and Superintendents, but in the institution's efforts to obtain public or private funds.

We could not bring another year to a close without expressing our sincere appreciation for the splendid work being carried on in this State by the Bingham Associates. The opportunities made possible for a large number of the smaller hospitals and their medical staffs toward the greater development of scientific work are of inestimable value both to the patients and the physicians in these institutions.

During the past year, some of our hospitals have encountered legal problems which have been somewhat confusing and disconcerting. In order that each of our institutions may be assured of proper legal protection, I would suggest that each hospital look carefully to its articles of incorporation in order to be sure that there are no loopholes which might subject the hospital and its management to embarrassing legal difficulties.

With the dark clouds of uncertainty hovering above us and the fact that we know Hitler and his bloodthirsty Axis pirates are prepared to pounce upon us when it suits their convenience, every citizen and every institution must be ready to meet whatever emergency we might be called upon to face. Each hospital in each community is morally obligated to be fully prepared.

The Governor has set up a Civil Defense Organization in our State, with Col. Sherman Shumway of Bangor as its head. With your approval, I hereby offer to Governor Sewall and Col. Shumway the full coöperation of the Maine Hospital Association in the preparation and work for Civil Defense in Maine. There must be no quibbling or holding back in times like these, for together we stand, divided we fall, and there is no place for timid souls!

How many emergency cases could you take care of in your hospital now if suddenly called upon? How is your stock of bandages, dressings, and instruments? Have you an extra supply of cots and stretchers which could be placed in corridors and waiting-rooms? What ambulance service have you available? These are but a few of the many questions which all our hospitals should answer for themselves now.

I hope that the acid test of emergency will not be put to your hospital or mine, but, after all, hopes are often but wishful thinking, and as we in Maine are, by geographical location, the farthest east of all states, we have a two-fold reason to be well prepared at all times.

Of the coming year, who can possibly predict? Unquestionably, we face most difficult economic and personnel problem. Rigid economies and substitutions will be required of all of us, but I am sure that the hospitals of this state will not be found wanting in their loyalty and devotion to their great humanitarian purpose.



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A Critical Survey of the Treatment of Burns

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During the last fifteen years the treatment of burns has been in an amorphous condition. Different schools of thought divide the country, each school apparently considering its findings to be the ultimate in scientific truth. There has constantly been a great deal of internal dissention with no real coöperation between various groups.

This unsettled condition has not been without certain values however. The processes of critical, and sometimes antagonistic analysis have at least obtained a few positive virtues. Some of the older forms of treatment that were obviously of no real use have been dropped, leaving the field clear for a few of the more modern forms of treatment.

As one looks back over the history of the treatment of burns it is obvious that what has been going on in the last fifteen years is simply a condensation and a magnification of what has been happening since the beginning. The general therapeutic trend, in most other diseases has shown a fairly consistent rise, although the curve was sometimes fluctuant. It is peculiar that the curve representing the treatment of burns can only be plotted by a series of distorted circles. Types of treatment have always been cyclic, recurring at varying intervals. For example, tannic acid for treating burns was advocated 600 years B. C. by the Chinese, again 400 years later by Hip-

pocrates; for a third time by Paulus of Aegina somewhere around the third century, A. D. In 1895, tannic acid was championed by an anonymous writer in the *Pittsburgh Medical Gazette*, and in 1925 became a standard form of treatment sponsored by the monumental work of Davidson. Carron oil was introduced twice, once in the third century B. C. by Cerapion and again in 1809 by Samuel Cooper. The water bath was also discovered twice. Aetius used it in the sixth century A. D. and Passavant rediscovered it in 1858. In recent years, even such a treatment as melted paraffin has gone through two cycles. Lawson Tait began the treatment in 1864 and gave it a very brief popularity. In 1915 due to the stimulus of the first World War, it was rediscovered and presented as Ambrin again enjoying short-lived popularity.

An analysis of the reasons for the recurrent use and rejection of the various treatments for burns reveals one important factor. The treatment has been in the main empirical, based upon insufficient laboratory data and aimed at treating a condition about which very little was known. Lack of continuity of treatment is due to the lack of continuity in the conception of the pathology of burns. In no other field where the conditions are relatively as simple has there been so

much theorizing. Indeed in this field theory, lacking the restraint of adequate clinical and laboratory observation, has soared into the realm of philosophy.

The recent history of the treatment of burns is very disturbing. It seems inconceivable that modern scientific medicine should continue to employ an unscientific approach to this problem. Certain theories as to the etiology of the toxemia of burns have definitely been proven to be wrong and yet many forms of treatment are brought out based on these fallacies and they continue to be acceptable to the vast majority of modern doctors. Other theories that are apparently based on sound laboratory work are disregarded. The most astounding accusation that can be made is that doctors as a whole are still looking for an easy way to take care of burns and are deliberately avoiding all forms of treatment no matter how logical they seem if they involve too much time and effort.

Since 1925, in this country the types of treatment used on burns have been multiple. A partial list of treatments include tannic acid, tannic acid and silver nitrate, gentian violet, gentian violet and silver nitrate, dry heat, liquid air, complete debridement, exsanguination and transfusion, adrenalin, picric acid, picrate salves, cod liver oil, cod liver ointments, the halogens in oil, various pastes and ointments, triple dyes, blood and serum transfusions, the water bath, and the sulfonamides.

It is no exaggeration to state that if one looks through the medical literature for the last fifteen years, one will find over three thousand articles on the subject, most of them written with a great deal of vehemence. The advocates of each form of treatment have conclusively proved to themselves that theirs is the only method of treating a burn and that everybody else is wrong. However, most of the proofs are seventy-five per cent faith and it is rare indeed to find an article scientifically written based on large series of cases.

There must be some exit from the pyrologic labyrinth. This exit is not going to be found by philosophizing as to the causes of the toxemia and the best forms of treatment. The problem requires a great deal of work, and the work should be started soon, as the

problem is bigger than most physicians realize.

According to the 1939 statistics published by the National Safety Council, burns accounted for twenty three per cent of all accidental deaths occurring under the age of five. From five to fifteen, burns killed thirteen per cent of our population who died by accidental means and from fifteen years on burns took a toll of six per cent of all of our accidental deaths. To present the picture in a slightly more modern form, in 1940 there were ten thousand people killed in England by bombs. In this country over ten thousand are killed by burns every year and yet it stirs no tremendous feeling of responsibility among doctors. It is very significant that throughout the country as a whole the average clinic runs a burn mortality between thirty and forty per cent, and yet it has been conclusively shown by a few men interested in the subject that the mortality need be no more than ten per cent if the proper work is done. These last statements are not made in a sense of accusation, but only in the hopes of awakening the medical profession to the tremendous problem presented by the burned patient.

In order to devise a rational type of treatment the underlying cause of toxemia must be understood. It will bear repetition to review a few of the major theories advanced as to the etiology of the toxemia and death following burns.

The first so-called modern theory dealt with the loss of the functions of the skin as the causative agent. This theory assumed that the destruction of the skin functions of secretion, heat regulation and sensation brought about the toxemia. Many ingenious experiments were done to prove or disprove this theory and it is now generally regarded as obsolete, interesting only from an historical viewpoint.

The theory of toxic absorption was next brought out and advanced by a large group of investigators. It is based on the assumption that there is formed in the site of the burn, produced by an alteration of proteins, a toxic substance which is absorbed by the body and that this is responsible for the general reaction of the patient. A wide variety of substances have been described by a great many investigators. Some of the substances men-

tioned are histamine, histidine, pyridin, guanidin, the ptomaines and the primary and secondary proteoses. There has been little or no correlation of various groups of workers engaged in this problem. In fact the more this theory is advocated, the more confused it becomes and even the experiments in 1923 by Robertson and Boyd have been disproved by Underhill and Kapsinow. Robertson and Boyd published a paper in which they claimed to have found in the skin of burned animals a toxin which "circulates in the blood either in or adsorbed by the red corpuscles and which causes the symptoms seen in bad superficial burns and in some cases death." . . . "the toxic substance consists of two portions, one of which is thermostabile, diffusible and neurotoxic; the other is thermolabile, colloidal and necrotoxic. Chemically the toxic consists of primary and secondary proteoses." They described the chemistry and the physics of this split protein and seemed to have settled the problem and definitely established the theory of toxic adsorption as being the real etiology of the burn syndrome.

Underhill and Kapsinow repeated the experiments of Robertson and Boyd, duplicating them in every detail. They confirmed the results above described, in that an extract of burned skin prepared according to the technic of Robertson and Boyd was toxic when injected into guinea-pigs; however, they also obtained the same results by preparing and injecting normal skin in the same manner. Unable to believe in a skin toxin they analyzed the extract which was alcoholic, and found a sufficient quantity of alcohol to account for the symptoms exhibited by the burned animals. As a control this amount of alcohol was injected alone into guinea-pigs with exactly the same toxic results. This leads one to believe that the primary and secondary proteoses described by Robertson and Boyd was simple ethyl alcohol. Underhill injected whole blood from a burned patient into animals and found no toxicity resulted.

Underhill, Kapsinow and Fisk injected trypan and methylene blue into the burned area of experimental animals and on no test could they find either of these substances in the urine or blood stream afterwards. In another series they injected five times the

lethal dose of strychnine into burned areas of experimental animals without any signs of strychnine poisoning being apparent in any of the animals. If these three substances cannot be detected in the blood stream on any occasion, it seems inconceivable that a vague split protein can be absorbed in one hundred per cent of the large burns in sufficient quantities to cause the inevitable signs of toxemia and in many cases death.

The third theory was advocated by Underhill. This theory might be called the theory of hemo-concentration. Underhill showed experimentally that a third degree burn of one-sixth of the body area in an animal causes a loss of seventy-five per cent of the circulating blood plasma in twenty-four hours. This, of course, results in a terrific concentration of the solid elements of the blood. Some of Underhill's animals showed a hemaglobin of two hundred and forty. It is well known that a hemoglobin of one hundred and forty is not compatible with life for any length of time. On the basis of this theory Underhill advocated the curbing of blood changes as the best treatment. He stated that if the blood were kept within the normal limits for all of its constituents, there would be no toxemia and no death.

Underhill's treatment is an excellent one as a first-aid measure and for combatting shock, but it is obvious to all surgeons who have handled many burned patients that his form of treatment does not prevent the toxic condition exhibited from the fourth day onward. Underhill's mortality figures also do not bear out his theory.

In 1928, Firor and Aldrich brought out the theory of infection. Their work was based on a bacteriological study made on all the burns entering the John Hopkins Hospital over a period of months. They showed that for the first eighteen hours the burned areas were practically sterile. From the eighteenth hour to the fortieth hour the culture reports came back positive for a mixed infection which grew heavier as the time advanced. Between the fortieth and seventy-second hour some one form of the streptococcus outgrew all other organisms and at the end of the seventy-second hour the culture reports on one hundred per cent of the large burns revealed a pure culture of a virulent

streptococcus. Their work was later corroborated by Cruikshank in the Royal Infirmary. He had the same findings on two hundred consecutive burns. This for the time being, at least, established the cause of toxemia and death as being a streptococcic invasion of the body.

In 1929, Firor and Aldrich advocated the Gentian violet treatment as the logical one to combat the infection. Their treatment was used in conjunction with proper treatment for shock and a careful estimate of the blood throughout the patient's convalescence.

In 1934, Aldrich brought out a mixture of three of the aniline dyes as a better form of treatment than gentian violet alone as gentian violet was not a specific antiseptic against the gram negative organisms. He found by combining crystal violet, brilliant green and neutral acriflavine, a synergistic reaction was obtained, giving the mixture a high specificity against all organisms. This mixture is non-toxic and forms a light flexible eschar by combining with the upper portion of the burn. This prevents pain and fluid loss and acts as a scaffolding for the new growth for epithelium.

Before evaluating the various forms of treatment, it is considered highly essential to discuss the freshly burned patient. A newly burned patient should be considered primarily not a burn at all, but a case of shock. If the mortality of burns is to be reduced to the lowest possible level, it is very necessary that the patient be allowed to live long enough to combat his burns. If he is not given this fighting chance and is allowed to die of shock, the mortality minimum will never be reached. As the majority of burned patients are in good health before the accident, it is not too drastic to state that if a patient with a third degree burn of seventy-five per cent of the body area or less dies within the first seventy-two hours, that death can be laid at the feet of the surgeon taking care of him. It is purely a shock death unless there are other complications, and with our present knowledge of combatting shock, it need not occur.

There is absolutely no first aid treatment for large burns. Too many first aid students are being developed by various organizations for the good of the burned population. To

attempt removal of burned clothing and elaborate handling and bandaging is to invite early mortality. In burns of twenty per cent of the body area or more the aim should be to take care of the patient as one who is in shock or will shortly go into shock and to leave the treatment of burns in the hands of the surgeon who will take care of it after the patient is hospitalized.

Heat, rest, fluids and the control of pain are the four fundamental considerations to be given to a large fresh burn. When these have been provided for the proper type of treatment for the burn can be instigated and the patient will then have a chance to recover from his burned areas or to die because of them rather than from shock.

It is generally conceded that tannic acid and the aniline dyes are the two modern forms of early treatment for burns. Certainly these two forms of treatment are used more than any of the others. Certain of the salves have been put on the market and a great deal of pressure has been used to increase their use. In most instances the use of any one salve is short-lived and a careful study reveals that such forms of treatment are not widely taken up by the medical profession for treating large burns.

The tannic acid treatment for burns was brought out by Dr. Davidson of Detroit in 1925. It is now being used widely throughout the medical world and it is a very good treatment for the first few weeks in the case of a burn patient.

Those clinics that are interested in the care of burned patients and use the tannic acid according to the technique advocated by the Detroit group report fairly low mortalities. Its beneficial features are derived from its escharotic action and the aseptic manner in which it is applied. The technique for its use as advocated by the Detroit school is a rigid one.

When the burned patient is brought into the hospital he is anesthetized as soon as it is feasible. The burned areas are then thoroughly scrubbed with tincture of green soap and water. Scrubbing should be done gently in order not to traumatize injured tissue. The scrub-up usually takes about a half-hour. Following this a five or ten per cent freshly prepared aqueous solution of chemi-

cally pure tannic acid is sprayed on the burned surfaces. As soon as the first coat dries a second one is applied. This process continues until a definite eschar has formed. The tannic acid eschar is rather thick, insoluble and brittle. When it has formed it seals off the burned nerve endings from air, thereby stopping pain. As it has been put on a sterile surface, it reduces the possibilities of infection during the first two or three weeks.

The most expert exponents of this treatment advocate the removal of the eschar after three weeks. This empirical time limit was arrived at by clinical experience. It was found that after the first three weeks infection almost invariably began to undermine the eschar. Due to its insoluble character it tends to pocket the pus causing sub-escharotic abscesses.

The removal usually has to be done by sharp dissection under anesthesia. After it is off the exposed surfaces are then either skin grafted or treated with wet dressings until the granulation tissue builds up sufficiently to accept grafts.

When this technique is followed carefully, and when at the same time attention is paid to the general care of the patient, the end results are fairly good. However, it is obvious that there are some serious drawbacks to this form of treatment.

In the first place it is frequently not advisable to anesthetize and scrub a large burned area when the patient is in profound shock. If, as sometimes happens, the shock period lasts for twenty-four to forty-eight hours, it is impossible to thoroughly cleanse the burned areas. In these cases, either tannic acid is put on top of the infected surface, or the patient must be subjected to anesthesia and scrub-up before he is entirely out of shock.

Secondly, due to the nature of the crust, tannic acid gives no clue as to the presence of infection. The first evidence is usually noted on the chart by a rise in the temperature curve. In order to find where the infection is, the eschar would have to be drilled to tap the pus pocket. While it is true that infection usually does not develop under the eschar before the end of the third week, there are cases where virulent organisms are

able to gain a foothold before that period is up.

Thirdly, it is pretty obvious to anyone who has handled many large burns that at the end of three weeks it is impossible to graft a great many of them. Granulation tissue has not built up in that length of time, and skin grafts would not remain viable for long. In such cases, it is necessary to turn to wet dressings of boric acid, chlorinated soda, or Dakin's solution for an undetermined period until the tissues have built up to the proper character and level. Thus in certain deep large burns tannic acid treatment can only be used for three weeks and then it is necessary to resort to older forms of treatment that have acknowledged drawbacks.

Tannic acid has a mild detrimental effect on exposed tissues. It does not tend to preserve all of the viable cells. As a matter of fact, it has a definite though weak destructive action. Thus a light second degree burn is changed to a deeper one and a deep second degree burn is frequently converted into a third degree. This destructive action necessitates skin grafting in the vast majority of burns and clinical experience has shown that burns treated with tannic acid are more prone to form contracture bands than those treated with certain other substances.

In the last few months the author has received verbal communications from several surgeons who are using the tannic acid treatment that indicate that tannic acid may have a destructive factor on the liver. Not enough cases have been observed yet to make a definite statement. It can be said, however, that in a few careful autopsies done on patients dying from burns who had received the tannic acid treatment, there was a necrosis of the liver closely resembling the picture seen in animals who had received intravenous injections of tannic acid. A great deal more work and study will have to be done before this point can be proven.

In recent years a modification of the tannic acid treatment has been advocated. This modification consists of spraying on only one coat of a ten per cent aqueous solution of tannic acid followed by a 5% aqueous solution of silver nitrate. The silver nitrate causes

an immediate precipitation which brings about the formation of an eschar within a few minutes. While it might be advisable to have an eschar formed rapidly, it is not very necessary and certainly should not be done at the expense of the burned area itself. As there is no way of determining the exact amount of silver nitrate necessary for the complete precipitation of the tannic acid, it is obvious that in the majority of cases an excess of silver nitrate will be used. This causes immediate destruction of the exposed tissues and it is not an exaggeration to state that when this treatment is used, every second degree burn becomes a third and every third degree burn is deepened. When the tannic acid, silver nitrate treatment is used, skin grafting becomes a necessity, which means a definite increase in poor cosmetic and functional results.

Salves and ointments as a preliminary treatment in burns are not fundamentally sound. There are many of these products on the market that are supposed to contain various chemicals, highly beneficial in stimulating growth and bringing about antiseptic conditions. It has been definitely proven that very few of the antiseptics are capable of being transferred by an oily base into the aqueous film surrounding an organism. In order to accomplish this the antiseptic must be one which is released from the salve as a gas which then dissolves in the watery film surrounding the germ. Thus it is seen that the potency of the antiseptic becomes greatly reduced if not entirely destroyed when it is put up in an ointment.

When a salve is used, daily dressings must be done. This is a very painful procedure in most burns. Patients rapidly develop an intense fear of the daily visit of the surgeon and it is much more difficult to have them attain that proper mental condition so necessary to the physical response in a convalescent patient. This is especially true in children where coöperation and cheerfulness are so important.

Ointments and salves, when kept in contact with skin and tissues over a long period of time, tend to bring about maceration. This is due, not to actual invasion by the ointment, but rather to the fact that the nor-

mal aqueous excretions cause the waterlogging. When these substances are applied to a fresh burn surface, they do not prevent the serous exudate which takes place during the first seventy-two hours. Thus a serious fluid loss occurs, which must be replaced. A great number of the salves on the market advocated for use in burns have caused extensive eczema and dermatitis. As it is almost impossible to keep an ointment confined to the burned surface, and as normal unburned skin has definite absorptive powers, it is quite possible for a toxemia to develop when the ointment contains some of the mercurials and picrates. This fact is borne out by a review of the recent literature which reveals at least fifteen fatalities resulting from the absorption of a substance commonly used in the treatment of burns. It is generally concluded that most salves, ointments, and soap-like products are without any definite values in the first stage of burn treatment.

Wet dressings have been used in the past a great deal. At the present time, however, very few surgeons approve of this technique as an initial treatment. Wet dressings were originally considered an ideal method of applying a mild antiseptic to the burned area. Lister used moist boric acid compresses exclusively in treating burns. All of the non-irritating antiseptics have been used by this method at one time or another. The drawbacks of this technique as an initial treatment are obvious. It is almost impossible to keep wet dressings warm and to keep the liquid from wetting the entire bed. The patient is thus lying in a cool pool of solution which is very uncomfortable and undoubtedly lowers the patient's resistance. Wet dressings have to be changed frequently and tend to adhere to raw surfaces. The one beneficial effect of this treatment, the antiseptic quality, is overwhelmed by the many drawbacks. At the present time, wet dressings are useful only in infected burns. In this situation, they do exert a cleansing effect on the surface, and if kept warm, create a hyperemia, which is useful in combatting infection.

The water bath has been used many times in the past and has been discarded. It is not worth while mentioning this treatment in this paper.

The treatment of burns with a mixture of three of the aniline dyes is, in the opinion of the author, the most modern and logical one. The efficacy of this form of treatment should be judged by a number of factors. These factors are:

- (1) Mortality.
- (2) Morbidity.
- (3) Life expectancy in the fatal cases in terms of time.
- (4) Complications such as surgical scarlet, septicemias, and metastatic abscesses.
- (5) Necessity for skin grafting and plastic operations.
- (6) The end results from the cosmetic viewpoint.

The aniline dye treatment has one serious drawback. It is not an easy form of treatment. It involves a great deal of work on the part of the surgeon, and will never become the method of choice for the surgeon who is too busy to give the necessary time or to the one who for other reasons does not like to put in the required hard work. In clinics where the care of a burned patient is relegated to the youngest interne or to student nurses, it has no place. In most cases when it has apparently failed, a study will show that lack of interest or a lack of ability have been the underlying causes of the failure.

The case records of the Boston City Hospital for the years 1939 and 1940 give the necessary data to judge this form of treatment according to the criteria as stated above. In these two years, over five hundred seriously burned patients were admitted for hospitalization. In 1939, the mortality was 7.2 per cent, and in 1940, 10.3 per cent. When these figures are compared to the mortality as reported for the Johns Hopkins Hospital by Wharthen for the tannic acid years of 1927 and 1928, a marked reduction will be noted. The average mortality for those two years in Johns Hopkins was thirty-two per cent. Other clinics have frequently reported as low a mortality as the Boston City, but the figures are not based on a sufficiently large series. In another paper, an analysis of the cases at the Boston City Hospital will be made covering the years 1919 thru 1940 inclusive. This series is

based on approximately 3000 cases. The mortality during that period in which the aniline dyes were used was consistently around ten per cent in spite of a large number of total burns which obviously could not be saved.

Morbidity cannot be stated in percentages. It is sufficient to state that the vast majority of third degree burns of one-third of the body area or less, treated with the aniline dyes, were not confined to bed unless the feet were involved. Most of the patients were allowed to sit up, were given bathroom privileges, and were able to care for themselves to a large degree. Toxemia only developed if the lesions became septic, and rapidly cleared when the sepsis was controlled.

The average life expectancy of the fatal burn cases in the above-mentioned series was 142 days. The value of such a prolonged period is obvious. It indicates that patients were not being lost in the first seventy-two hours from shock and were not dying from an acute infection in the first month. This lengthy period gives both the patient and the surgeon ample time to utilize all the known supportive treatments. The satisfaction to the patient is of course nil, but to the surgeon, a death occurring after five months of hard work does not bring a feeling of guilt for inadequate care. The causes of death after such a period are multiple, but usually depend upon factors which cannot be combatted by even the most meticulous and well-trained surgeon. Conditions such as old age, the lack of reserve forces of childhood, and pre-existing diseases are causes that human forces cannot change.

Complications arising in burn patients treated with the aniline dyes are rare. Under the older forms of treatment, surgical scarlet was a not uncommon disease. No case of it was observed in any of the burns at the Boston City Hospital treated with gentian violet or the aniline mixture.

This absence is due to the specific action of these aniline dyes against the gram positive organisms. The incidence of septicemia, metastatic abscess, ulceration of the intestine, kidney damage, and the many other complications predominant under other forms of treatment is very low.

This again is due to the reduction of

surface infection by the action of the dyes. Most of the complications arising after the first week following the burn are due to infection.

Skin grafts are necessary in extensive burns when all of the epithelium has been destroyed. It is inadvisable to wait for new epithelium to grow in from the edges. The growth is slow, granulation tissue builds up too high, and scar tissue contraction bands make their appearance in the granulating surface. However, in most of the third degree burns, all epithelium is not destroyed. There are many islands of epithelium at the base of the hair follicles and the sweat glands which usually escape destruction, as these structures are beneath the dermis. If these many islands of epithelium can be kept free from infection, they will grow up through the granulating tissue and spread a new layer of thin pink flexible skin over most of the third degree areas. It is quite important that the viability of these cells is not affected and that no solution or ointment should be used on them that is irritating or harsh. The aniline dyes exert no deleterious influence on living cells. Even in large third degree burns such as one of the entire back, it has been found necessary to skin graft in only about one-fifth of the cases that formally came to this procedure. When new epithelium covers a burn at a fairly early stage, contracture bands do not develop, and if patients are compelled to heal in the best possible position, webs and adhesions do not develop.

The treatment with the aniline dyes was brought out in 1934 by Aldrich. Gentian violet had been his method of choice, but gentian violet had one inherent weakness — it was not a specific antiseptic against gram negative organisms. This led to the annoying complication of having the eschar elevated by coli-bacillus pus somewhere after the first week. A search was then made through all the aniline dyes for some one substance that would contain the beneficial effect of gentian violet with a high specific action against the gram negatives. No one dye could be found. It was discovered, however, that a mixture of three of the aniline dyes, namely, crystal violet, brilliant green, and neutral acriflavin, when combined in certain proportions, developed a synergistic

action. This combination formed a light, tough, flexible, soluble eschar as did the gentian violet and yet exerted a powerful antiseptic action against gram negatives and gram positives. In the test tube in broth, this mixture will not allow a gram positive to grow in concentrations of one to one million. In concentrations of one part of the dye mixture to ten thousand parts of broth, both gram positives and gram negatives are killed. It is used on burned areas in a 2% aqueous solution. A toxicity study was then conducted. None of the experimental animals used showed any reaction to the mixture, and it has since been used on well over one thousand burns without any noticeable side action.

When a burned patient is first admitted, the initial attention is given to the shock phase. In most cases, it is usually possible to remove their clothing and place them in bed under a cradle without disturbing them. If the patient is in extremis, he is simply placed in bed, wrapped up in warm blankets, or placed under an electric heating blanket, the clothing not being disturbed.

Shock is handled by the four fundamentals of heat, rest, fluids, and the control of pain. Every patient with a burn of one-fifth of the body area or more is considered a shock patient whether or not he shows symptoms and physical signs on admission.

The treatment of the burned areas is begun as soon as it is considered safe to do so. No preliminary scrub-up is done on an untreated burn. If there are any loose shreds of skin, these may be trimmed away. All blebs are excised. No effort is made to do a complete debridement. It is necessary to remove any oily substance or salve that has been applied as a first aid measure before the aqueous solution of the dyes can be applied. A sponge sopping wet with ether is patted on the oily areas gently until they are perfectly clean. It is not necessary to use an anesthesia for this procedure.

A two per cent aqueous solution of the aniline dyes is sprayed on the burned surface. As fast as one coat dries, another is reapplied. This process is continued until a light, flexible eschar is formed. All pain ceases usually after the first coat has been applied. The patient is placed in bed under

a cradle in which the temperature is maintained at between 84 degrees and 88 degrees Fahrenheit. Once the eschar is formed, no further application of dyes is needed, but the eschar must be examined at least once a day for signs of softening. This eschar, unlike the one obtained by tannic acid, is soluble.

If an area becomes infected, the eschar directly over it becomes soft and moist. Such a spot is elevated with tissue forceps and trimmed away with scissors. The underlying area is dried with a sterile sponge, and the dye reapplied. This process of picking and respraying continues until granulation tissue has been built up to the point of accepting a skin graft or until epithelium begins to spread throughout the granulated tissue.

In an ideal burn — that is, a burn that can be kept uppermost and exposed to air and is not involved in body secretions and excretions — the eschar remains dry and sterile throughout until epithelium has spread under it. Frequently, the eschar can be elevated in one piece at the end of a healing period revealing a thin pink scar with no tendency to contracture.

Large burns, however, are usually not ideal. A burn of thirty per cent or more of the body area usually involves both the front and back of the body and necessitates the patient lying on a burned surface. This, plus the contact with the bed, causes an imperfect eschar to develop. In most large burns, an orifice of the body lies either in or close to the burn surface. This brings about gross contamination many times a day, which is almost certain to infect the area under the eschar. This is especially true of children who refuse to use the bed pan and who constantly soil themselves and soak their eschar in urine.

This contamination makes it essential to watch the eschar very closely. If all infected areas are removed at least once a day, the superficial sepsis can never bring about a bacterial invasion. Where there is no infection or only a superficial one, there is never any real toxemia.

In third degree burns, usually, the islands of epithelium at the base of the hair follicles and sweat glands are not destroyed as they are beneath the skin. If sepsis can be pre-

vented to a marked extent, these tiny islands will spread and cover even a large burn. The end result is a soft, thin, pliable scar that gives a good cosmetic result and does not lead to the formation of contracture bands.

The drawbacks to the aniline treatment are few but are definite. This type of treatment is not an easy one. It requires painstaking effort to observe the eschar, and frequently a large burn will occupy an hour of the surgeon's time in removing septic areas. There is no antiseptic strong enough to kill off germs under conditions of gross contamination that is tolerated by the body. With the aniline treatment, a surgeon can stay a short way ahead of gross infection if he is willing to put in the necessary time and effort. It is this feature that condemns this form of treatment in the eyes of most surgeons who have tried it and who have given it up. This drawback is not as much an accusation of the form of treatment as it is the surgeon caring for the case. If the mortality can be reduced from the average of thirty per cent down to eight per cent, it is certainly well worth the effort needed to bring about the reduction.

It has been the experience of the author during the past ten years of clinical work on burns that no one form of treatment can be used through the entire period of convalescence on every large burn. The period beginning with the inspection of the burn and ending with complete healing can be divided into three parts. The first part covers the period of shock. As stressed before, this is a very important phase and must be dealt with by shock treatment and not by treatment on the burn. When this period is over, there is a definite need for a substance that will act as an antiseptic and form a light, flexible eschar. Up to the present time, the dye mixture is the best known agent in bringing about the desired result. This period has no special time limit. The depth of the burn and the ability to heal makes each patient an individual case, and only averages can be given when attempting to evaluate the time element. An average in a large series of burns would be about one month. Certain burns will heal very rapidly, and others will cover a period of many months.

At the end of the second phase of healing, that is, when the granulation tissue has built up to the point where it will accept a skin graft or where many small islands of epithelium are beginning to spread through the burned areas, the aniline dye treatment should be discontinued. The third phase represents a different problem, this problem being to stimulate the epithelium that is present in the burned surface or to artificially cover part or all of it with epithelium from some other area of the body. Skin grafting will not be discussed in this paper. The surgeon may choose the type of graft he considers best and may treat it with the technique that he approves.

Many substances have been credited as having inherent powers of epithelial stimulation. Most of these substances are put up in the form of a salve, and clinical observation indicates that a few of them actually cause a more rapid spread of epithelium. It has been the experience of the author that cod liver oil is a definite stimulator to the growth of new skin. This power is supposed to be due to the vitamin content of the oil. While cod liver oil cannot be called an antiseptic, it is a well-known fact that it is sterile at all times, even when exposed to air. It has a definite bacteriostatic action, with possibly a mild bactericidal one. The high vitamin A and D content of the oil seemingly aids the islands of epithelium to grow faster than one would normally expect. Cod liver oil, however, is a messy substance to use as a dressing. It saturates the bed clothing and has a rather unpleasant odor. In a recent series of cases, the author has used a cod liver oil ointment containing seventy per cent cod liver oil, thirty per cent wax, and small amounts of zinc oxide, benzoin and phenol. This ointment has only a slight odor and is of a good consistency. It spreads easily on gauze. Because of the wax base, there is no tendency toward maceration. It contains a sufficiently high concentration of cod liver oil to insure a high vitamin potency. The zinc oxide, benzoin and phenol bring about a slight drying and antiseptic action. The dressings should be changed twice a day in hospitalized cases and once a day in ambulatory patients.

Usually, within a few days after this

treatment of the final stage has begun, the epithelium spreads remarkably fast and begins to cover all the raw surfaces. These dressings should be continued until healing is complete.

FORMULA OF DYMIXAL

A mixture is made up of the following materials, the parts being given by weight:

Crystal violet (hexamethyl pararosaniline hydrochloride)	1.5
Neutral acriflavine (the base of 3:6-diamino-10-methyl acridinum chloride mono-hydrochloride)	0.75
Brilliant green (the sulphate of tetraethyl diamino triphenyl carbinol anhydride)	1.0

In practice, 6.5 grams of this mixture is dissolved in 250 cc. of water and the resulting solution is applied to the burned surface or surfaces with a suitable vaporizer, atomizer, spray or the like.

The Dymixal is distributed by the McNeil Laboratories, 2900 North 17th Street, Philadelphia, Pa.

The cod liver oil ointment mentioned is manufactured by the E. L. Patch Company of Stoneham, Mass.

SUMMARY

(1) A brief history of the treatment of burns is given.

(2) The theories as to the cause of the toxemia and death occurring in burned patients are reviewed.

(3) The treatment of shock should be carried out before the burned areas themselves are given consideration.

(4) Tannic acid and the aniline dye treatments are discussed and compared.

(5) The results obtained on burned patients entering the Boston City Hospital between 1919 and 1940 are analyzed.

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Continued on page 42

*Looking Back Fifty Years**

By W. EDGAR SINCOCK, M. D., Caribou, Maine

The first of August has arrived and I suppose that the Medical Board of the Cary Hospital expects some sort of a paper from me.

I have been looking back in my mind over half a century of busy practice to see if I could think of any cases or happenings in the practice of medicine that would be of any interest to you.

I began the practice of medicine the first of July, 1891, in this town in the same place where I now live, it being my father's home, where I had lived since I was six years old. I had been studying medicine four years, having attended three-year medical courses at Bowdoin. The way we used to do in those days was to register with some doctor in active practice, and when we were not in the medical school we would be in his office, visit cases with him, see how he diagnosed, examined and treated his cases, and we were supposed to read physiology, chemistry, anatomy, medicine and recite to him.

The course at Bowdoin was three years but I was out my third year on account of the death of my father and a sister (father died of pneumonia and sister of tuberculosis of the lungs). During that year I was in the office of my preceptor and made many calls on his patients for him.

My preceptor, the late Charles F. Thomas, father of our Doctor Charles, was a true, typical country doctor, of a wonderful personality; cheerful, strong, hard-working, tireless, and self-sacrificing. His patients came first and he gave to them the best he had. Charles F. Thomas was beloved by his patients and the citizens of Caribou. He was interested in the schools and everything that was for the advancement of Caribou, and he was also the best after dinner speaker in town,—as A. M. York used to say "By God".

What a difference there is today in the treatment of diseases than when I started to practice in 1891. At that time serum for diphtheria was not discovered and all we had

to combat it with was supportive treatment tincture of choloride of iron and whiskey. How well do I remember a little girl of three years, she lived on Sweden Street, who had what we then called membranous croup. Her breathing kept growing harder and louder, and color of nails blue,—as a last resort I did a tracheotomy, how the color came back to her face and how quietly she rested that night, but the disease soon went beyond my tube and she died.

In those days diphtheria wiped out whole families. When antitoxin was first used I remember how cautious we were about using it. Diagnoses then were made on symptoms and appearance of the throat. There were no laboratories in the county and by the time we got a report from the state chemist at Augusta, it was usually too late to give the injection. I can think of two cases;—one in the village and one in Perham whom I feel sure would be living today had I given antitoxin sooner and in larger doses.

Fifty years ago what did we have for the treatment of pneumonia and tuberculosis? In pneumonia if the involvement was not too much and the patient had a good heart the disease would run its course in five to eight days. The patient was kept in bed, symptoms were treated as they arose, poultices applied to the chest, some doctors had the courage to use cold on the chest but most of them used heat. Stimulants were given with the hope that they would live long enough for the disease to run its course and resolution take place. Pneumonia was called "the death of the old man."

In tuberculosis a change of climate was advised when possible which was not often. There were no sanatoriums where rest, forced feeding, fresh air and serums were given; the contagiousness of the disease was not realized and very few precautions were taken against the spread of it.

Typhoid fever, of which there used to be a great number of cases each year, was gener-

* Read before the Medical Board of the Cary Hospital, Caribou, Maine, by W. Edgar Sincock, M. D., August 5, 1941.

ally traced to the Aroostook River water or some well or stream from which drinking water was obtained. Presque Isle sewerage helped to pollute our river water and there was no treatment of it by chlorine gas as there is today. Cases of typhoid fever were diagnosed by objective symptoms; the Widal test was not used here. Today there is hardly a case of typhoid fever on account of preventive serum treatment and purification of water supply.

Let's look at the treatment of diabetes mellitus today and fifty years ago. The diagnosis is the same. There are the same general symptoms, of course, polyuria with sugar in the urine, glucose; the cause was unknown but it was attributed to nervous disturbances such as mental or emotional excitement or anxiety; sometimes to injuries to the head or as the result of acute diseases or to over indulgence in carbohydrates. The main treatment was cutting out starch and sugars and the main drug used was opium in some form to control the sugar. By this means the disease was held in check and in some cases the urine would clear up. I remember the case of an old man I had, a mason by trade, who was able by these means to live and work for a long period of years and was quite an old man when gathered to his fathers. There was no other treatment until 1920 when Banting and Best discovered insulin which revolutionized the whole treatment of diabetes. It is on record that 50% of diabetic patients previous to this discovery used to die of coma, 25% of phthisis or pneumonia and the remainder of Bright's disease, hemorrhage, gangrene, carbuncle or other complications. At the present time by the proper use of insulin these people can live out their natural lifetime.

There was no antidote for spinal meningitis, no serum for tetanus. No one had heard of the curative power of liver in the treatment of anemia, all we relied on in pernicious anemia was arsenic. Surgery was the only real treatment for cancer whereas today radium and X-ray help a great deal, but as yet the future holds the cure.

A new microbe killer has been discovered within the last few years which has revolutionized the treatment of a great many diseases; sulfanilamide. Septic sore throat, in-

flammation of tubes and ovaries, gonorrhea, and pneumonia are some of the diseases which are greatly benefitted by this preparation. I have had some cases of pneumonia during the past two years which were cured so quickly by sulfathiazole, the latest chemical cousin of sulfanilamide, that it was hard to make the families believe that the cases were any thing more than a simple cold. I have not treated many cases of gonorrhea with sulfathiazole but if results are anything like what is claimed for it, certainly it is the greatest boon to man that has happened during the last fifty years.

It is claimed that there are four cases of gonorrhea to one of syphilis, but syphilis is a deadly disease and while the armanent for its treatment has been greatly increased during the past half century still if the doctors would put more stress on the treatment and the people who have the disease would follow the doctors' directions better there would be much less syphilis in the world today. The premarital medical examination which has just become a law will be, I think, an aid in getting rid of this disease. I have only examined two couples under this law but they did not seem to think it was any hardship and were perfectly willing for the blood test to be made.

The prevention and treatment of diseases of children has changed a great deal. We had vaccination for smallpox but other than that there were no serums for children's diseases. As long ago as when I was a child bovine virus for smallpox was quite expensive and humanized virus was used a great deal. I remember when I was four years old after I had been vaccinated and had a good scab with plenty of pus under it Dr. Decker of Fort Fairfield, where we then lived, took me with him from house to house and vaccinated children and grown people from my arm. I cannot remember how he did it but it is safe to assume that he used the same needle or lance for every one without any disinfectant. I don't believe there was ever a happier kid than I when he lifted me down from his old buggy at my parents' door that night and gave me a quarter of a dollar.

If you took time and were interested to look up in some of the medical books of fifty years ago you would not find any mention of

hypertension. There were no blood pressure instruments and all we knew about it was what we learned by the sense of touch. Today the severity of our case can be exactly told. A study of the etiology and causal factors and strict attention to diet will do a great deal, but there is not yet a real antidote for high blood pressure. I have always believed that high blood pressure was due either to disease of the kidneys or some disease or change of the circulatory system. Most every drug house in the country has some pill for hypertension but I cannot say that I have had any success or benefit with any of them for my patients. I believe that some doctors in the Indianapolis City Hospital are working on a new remedy which if successful will revolutionize the treatment of hypertension. There is an interesting article on this subject in the August number of *The Readers Digest*.

When I began to practice medicine all the maternity cases were taken care of in the homes, as there were no hospitals or trained nurses, but in almost every neighborhood there would be some woman a little more capable than the others who would be sent for to help the doctor. I have slept a good many times in my old sleigh or buggy on the home journey after a twenty-four hour or longer stay, but my faithful horse would usually land me on my barn floor without any accident. A few times I remember waking up on the wrong road or in a field. When pituitrin came to our help, about thirty years ago, these long stays were shortened considerably. When I first began to practice the obstetrical fee was \$5.00, but money would buy more then and expenses were nothing compared to what they are today. If all my babies were living and in a town by themselves that town would have a population of 4,225, about half the population of the town of Caribou.

And now, Members of the Medical Board of Cary Hospital, I have tried in this short paper to show some of the changes and ad-

vancements in medicine during the fifty years of my practice; when you have arrived at my age you will have seen, no doubt, as many more and perhaps more important changes.

As new drugs and antidotes for diseases are discovered and greater knowledge and skill in surgery attained the span of human life will grow longer: and that brings me to my final point, for the past ten years I have thought that there has not been enough written about the care and treatment of the old man, and looking ahead to the future I hope that you will find on the shelves of the doctors' libraries just as many books and pamphlets about the care and treatment of the old man as are now found about the care and treatment of the child:—for we all know the truth of the saying "once a man twice a child." This is the way Shakespeare, the great delineator of life, puts it:

"All the world's a stage,

And all the men and women merely players;
They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages. At first the infant,
Mewling and puking in the nurse's arms.
And then, the whining school-boy, with his satchel
And shining morning face, creeping like snail
Unwillingly to school; And then the lover;
Sighing like furnace, with a woeful ballad
Made to his mistress' eyebrow; then the soldier,
Full of strange oaths, and bearded like a pard,
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation,
Even in the cannon's mouth; and then the justice;
In fair round belly, with good capon lined
With eyes severe and beard of formal cut,
Full of wise saws and modern instances,
And so he plays his part; The sixth age shifts
Into the lean and slippered pantaloons;
With spectacles on nose, and pouch on side;
His youthful hose well saved, a world too wide
For his shrunk shank, and his big manly voice
Turning again toward childish treble, pipes
And whistles in his sound; Last scene of all,
That ends this strange eventful history,
Is second childishness, and mere oblivion;
Sans teeth, sans eyes, sans taste, sans everything."

Undiagnosed tuberculosis is present in patients admitted to mental institutions in a fairly large percentage. In addition to these, a relatively large percentage of patients de-

velop tuberculosis while in residence, again without their disease being recognized. — M. POLLAK, et al., *Amer. Rev. of Tuber.* March, 1941 .

Recommendations to All Physicians with Reference to the National Emergency

I. MEDICAL STUDENTS

A. All students holding letters of acceptance from the Dean for admission to medical colleges and freshmen and sophomores of good academic standing in medical colleges should present letters or have letters presented for them by their deans to their local boards of the Selective Service System. This step is necessary in order to be considered for deferment in Class II-A as a medical student. If local boards classify such students in Class I-A, they should immediately notify their deans and if necessary exercise their rights of appeal to the Board of Appeals. If, after exhausting such rights of appeal, further consideration is necessary, request for further appeal may be made to the State Director and if necessary to the National Director of the Selective Service System. These officers have the power to take appeals to the President.

B. Those junior and senior students who are disqualified physically for commissions are to be recommended for deferment to local boards by their deans. These students should enroll with the Procurement and Assignment Service for other assignment.

C. All junior and senior students in good standing in medical schools, who have not done so, should apply immediately for commission in the Army or the Navy. This commission is in the grade of Second Lieutenant, Medical Administrative Corps of the Army of the United States, or Ensign H. V. (P) of the United States Navy Reserve, the choice as to Army or Navy being entirely voluntary. Applications for commission in the Army should be made to the Corps Area Surgeon of the Corps Area in which the applicant resides and applications for commission in the Navy should be made to the Commandant of the Naval District in which the applicant resides. Medical R. O. T. C. students should continue as before with a view of obtaining commissions as First Lieutenants, Medical Corps, upon graduation. Stu-

dents who hold commissions, while the commissions are in force, come under the jurisdiction of the Army and Navy authorities and are not subject to induction under the Selective Service Act. The Army and Navy authorities will defer calling these officers to active duty until they have completed their medical education and at least 12 months of internship.

II. RECENT GRADUATES

Upon successful completion of the medical college course, every individual holding commission as a Second Lieutenant, Medical Administrative Corps, Army of the United States, should make immediate application to the Adjutant General, United States Army, Washington, D. C., for appointment as First Lieutenant, Medical Corps, Army of the United States. Every individual holding commission as Ensign H. V. (P), U. S. Navy Reserve, should make immediate application to the Commandant of his Naval District for commission as Lieutenant (J. G.) Medical Corps Reserve, U. S. Navy. If appointment is desired in the grade of Lieutenant (J. G.) in the regular Medical Corps of the U. S. Navy, application should be made to the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

III. TWELVE MONTHS INTERNES

All internes should apply for a commission as First Lieutenant, Medical Corps, Army of the United States, or as Lieutenant (J. G.), United States Navy or Navy Reserve. Upon completion of 12 months internship, except in rare instances where the necessity of continuation as a member of the staff or as a resident can be defended by the institution, all who are physically fit may be required to enter military service. Those commissioned may then expect to enter military service in their professional capacity as medical officers; those who failed to apply for commission are liable for military service under the Selective Service Acts.

IV. HOSPITAL STAFF MEMBERS

Internes with more than 12 months of internship, assistant residents, fellows, residents, junior staff members, and staff members under the age of 45, fall within the provisions of the Selective Service Acts which provide that all men between the ages of 20 and 45 are liable for military service. All such men holding Army commissions are subject to call at any time and only *temporary deferment* is possible, upon approval of the application made by the institution to the Adjutant General of the United States Army certifying that the individual is temporarily indispensable. All such men holding Naval Reserve commissions are subject to call at any time at the discretion of the Secretary of the Navy. Temporary deferments may be granted only upon approval of applications made to the Surgeon General of the Navy.

All men in this category who do not hold commissions should enroll with the Procurement and Assignment Service. The Procurement and Assignment Service under the Executive Order of the President is charged with the proper distribution of medical personnel for military, governmental, industrial, and civil agencies of the entire country. All those so enrolled whose services have not been established as essential in their present capacities will be certified as available to the Army, Navy, governmental, industrial, or civil agencies requiring their services for the duration of the war.

V. ALL PHYSICIANS UNDER FORTY-FIVE

All male physicians in this category are liable for military service and those who do not hold commissions are subject to induction under the Selective Service Acts. In order that their service may be utilized in a professional capacity as medical officers, they should be made available for service when needed. Wherever possible, their present positions in civil life should be filled or provisions made for filling their positions, by those who are (a) over 45, (b) physicians under 45 who are physically disqualified for

military service, (c) women physicians, and (d) instructors and those engaged in research who do not possess an M. D. degree whose utilization would make available a physician for military service.

Every physician in this age group will be asked to enroll at an early date with the Procurement and Assignment Service. He will be certified for a position commensurate with his professional training and experience as requisitions are placed with the Procurement and Assignment Service by military, governmental, industrial or civil agencies requiring the assistance of those who must be dislocated for the duration of the national emergency.

VI. ALL PHYSICIANS OVER FORTY-FIVE

All physicians over 45 will be asked to enroll with the Procurement and Assignment Service at an early date. Those who are essential in their present capacities will be retained and those who are available for assignment to military, governmental, industrial or civil agencies may be asked by the Procurement and Assignment Service to serve those Agencies.

The maximal age for original appointment in the Army of the United States is 55. The maximal age for original appointment in the Naval Reserve is 50 years of age.

Frank H. Lahey, M. D., *Chairman*
Harvey B. Stone, M. D.
James E. Paullin, M. D.
Harold S. Diehl, M. D.
C. Willard Camalier, D. D. S.

Sam F. Seeley, M. D.,
Executive Officer

All inquiries concerning The Procurement and Assignment Service should be sent to The Executive Officer, 5654 Social Security Building, 4th and Independence Avenues, SW, Washington, D. C., and not to individual members of the Directing Board or of committees thereof.

Editorial

The Price of Peace

Did that fateful Sunday in December, when Japan struck with all her hideous fury, the climax of careful planning over many years, bring to the people of this Nation an awakening from their foolish dream of safety and false security? Did the humiliating and pitiful fact that we had been outwitted by the rulers of Japan, until they were ready to let loose the horrors of war, convince the country as a whole that ours had been a fool's paradise? Men whose opportunities and experiences warranted strict heed to their warnings had been over-ruled by believers of the policy of appeasement. Her Axis partner unable to supply Japan with the needed supplies for the conduct of war, trusting and misguided gentlemen in the United States bent over backwards to make up the deficit and the diplomats, not to be outdone in generosity, afforded the precious time required for full preparations and when it looked as if the cat might get out of the bag we had Kurusu direct from Tokyo as the special representative from the *Son of Heaven*. Theorists had predicted for many years that war would not come, if it did we had an ocean on each side of us, and it was argued, why should the fight of Europe concern us? War did come and it came with its messages of death and destruction with machines and materials we helped to make. Have we even now arrived to the bitter reality that to save America and every other country believing in the rights of men to live as life should be lived we must fight as never before in the history of so-called civilization?

Vast as our resources are, great as is our technical skill and vast as is the potential and actual wealth of this country all this means nothing unless transmitted into the modern mechanisms of defense and attack and the trained forces to operate them. The avowed hatred of the rulers of Japan toward the white races has culminated in an all-out effort to drive all but the Japanese from the rich countries of the Far East. Germany

with her openly avowed plan for a new order in Europe, with nation after nation the out and out slaves of the conquerors, invites the question, what is the price of peace? It also may be asked, what is peace and is it worth the price?

Peace, as so aptly states the *New England Journal of Medicine*, may remain the goal of our ambitions, but it is a higher goal because we know now that it represents a positive virtue and not a passive state. Peace is the final objective of our current endeavor; but it must be attained by *aggressive action*, it must be cultivated and consolidated and fostered, and it must be constantly defended by force — forever, as far as our present minds can reach. When this objective is attained, then can we truly say that, because of our determination to have it so, there may be peace on earth, *to men of good will*.

There can be but one answer to the question and that must come from a unified people and peoples else we drink the bitter dregs of humiliation and defeat as has been the fate of nation after nation. Physical invasion of this country may be an impossibility but does any person with a modicum of common sense believe that the axis group relies on that and that alone? Every possible plan and scheme to cripple us by sabotage, treachery and trickery has not been neglected. Witness the desperate efforts of Japan to cut the supply of rubber, tin and other materials required to build and operate the mechanisms we must have or perish. The price we must and will pay for success will be far, far less than that imposed by a victorious Axis cabal. The brutal coalition against the Allied nations knows full well the power of the forces that will ultimately be directed against them; the price of peace is even beyond estimation in effort, sacrifice and cost but if there is any doubt on the point of our willingness and ability by any Axis leader we refer him to the remark of Winston Churchill. "What kind of people do they think we are?"

Organization Section

Emergency Medical Service for Medical Defense State of Maine

Emergency medical services for civilian defense are now being matured as rapidly as possible, consistent with the magnitude of the work and the novelty of the service as it is developing. The following list will show the set-up as it has been developed and two meetings of the county chiefs with the State Director, Dr. Allan Craig of Bangor, have been held. It can safely be said there is no confusion or doubt in the minds of those who have been selected to attend to this task and as plans and advice come from proper headquarters they will be carried into effect.

Chief of Emergency Medical Service for the State of Maine

Allan Craig, M. D., Bangor.

County Chiefs of Emergency Medical Service

Androscoggin—M. S. F. Greene, M. D., Lewiston, Maine.

Aroostook—Frank H. Jackson, M. D., Houlton, Maine.

Cumberland—Roland B. Moore, M. D., 203 State St., Portland, Maine.

Franklin—James Reed, M. D., Farmington, Maine.

Hancock—Ralph W. Wakefield, M. D., Bar Harbor, Maine.

Kennebec — Clarence R. McLaughlin, M. D., Gardiner, Maine.

Knox—James Carswell, M. D., Camden, Maine.

Lincoln—Robert Belknap, M. D., Damariscotta, Maine.

Oxford—Garfield G. Defoe, M. D., Dixfield, Maine.

Penobscot—Harrison L. Robinson, M. D., 136 Hammond St., Bangor, Maine.

Piscataquis—M. C. Brown, M. D., Dover-Foxcroft, Maine.

Sagadahoc—E. M. Fuller, M. D., 108 Front St., Bath, Maine.

Somerset—W. S. Stinchfield, M. D., Skowhegan, Maine.

Waldo—Sumner Pattee, M. D., Belfast, Maine.

Washington — O. F. Larson, M. D., Machias, Maine.

York—David Dolloff, M. D., 13 Crescent St., Biddeford, Maine.

State Advisory Council for Dr. Craig

The President of the Maine Medical Association.

The President-elect of the Maine Medical Association.

The Secretary of the Maine Medical Association.

The President of the Maine Hospital Association.

Director of Bureau of Health and Welfare.

The President of the Maine State Nursing Association.

The President of the Maine Dental Association.

The President of the Maine Pharmaceutical Association.

Chief of Emergency Dental Service for the State of Maine

Fred Maxfield, D. D. S., F. A. C. D., Bangor.

For the availment of professional service and compactness the State will have four divisions, with three hospital Districts.

1. Medical Men
2. Hospitals
 1. Portland
 2. Lewiston
 3. Bangor
3. Nurses
4. Dentists

Chief of Emergency Hospital Services

Stephen S. Brown, M. D., Maine General Hospital, Portland.

Each County is to have available for advice and distribution of nursing services, a Nurse Leader and as soon as the appointees

are designated County Chiefs will be notified.

It is possible at this time to make merely a preliminary report and survey for as developments occur and requirements present themselves they will be fitted into the plans and preparations now being carefully considered. At first glance the plans may appear a little complicated but this is not a fact. The Chief Medical Director, Dr. Craig, is very anxious that Maine does not duplicate the mistakes and confusion that have followed premature plans and efforts to place them in operation. It is planned in the March issue of the JOURNAL to furnish as complete and authentic information as is possible. While the term emergency medical service is employed it can well be remembered that emergencies, if they occur, become less formidable if one is PREPARED.

From the Secretary's Office

To the Members of the Maine Medical Association:

I am pleased to inform you that Brig. Gen. John G. Towne, Medical Corps, of Waterville, has accepted the appointment as Chairman for the State Medical Committee of Procurement and Assignment Service.

I want to call your attention to two articles of special interest to every member of our Association, which are published elsewhere in this issue.

First — the article, *Recommendations to all Physicians with Reference to the National Emergency*. This material submitted by the Procurement and Assignment Service "clarifies quite largely the demands which will be made upon the medical profession."

Second — the article, *Emergency Medical Service of Medical Defense, State of Maine*. This preliminary report will be followed by more detailed reports in future issues of the JOURNAL.

Have you paid your 1942 State and County dues? If not—why not pay them now and help your County Secretary put your County Society on the 100% Paid-Up Membership List? In accordance with a vote of the House of Delegates in session at York Harbor, Sunday, June 22, 1941, "Members who have entered the Service are exempt from the payment of dues while in the Service."

FREDERICK R. CARTER, M. D.,
Secretary.

Necrologies

Walter Whitman Hendee, M. D., 1889-1942

Walter Whitman Hendee, M. D., of Vassalboro, died January 13, 1942, at the Veterans Administration Hospital, Togus, following an illness of about three months.

Doctor Hendee was born in Augusta, March 28, 1889, the son of Edwin C. and Florence Hendee. He attended local schools in Augusta, Cony High School, Bowdoin Medical School, and was graduated from the Boston College of Physicians and Surgeons in 1914. After graduation he served for a time as a First Lieutenant in the Medical Corps in the World War. He was at one time a physician at the Veterans Hospital at Togus.

After leaving the Service he established an office in Vassalboro where he has served faithfully and well that town and surrounding communities for about twenty-two years.

Doctor Hendee was a member of the Kennebec County Medical Association, the Maine Medical Association, the American Medical Association, and of the Masonic Lodge, The American Legion and the Episcopal Church.

He is survived by his widow, Charlotte, and his parents.

George B. O'Connell, M. D., 1877-1941

George B. O'Connell, M. D., one of Lewiston's most prominent citizens, died December 1, 1941, at St. Mary's General Hospital, of cerebral hemorrhage. He had been in ill health for a number of months and despite the advice of physicians had continued his regular work on the St. Mary's General Hospital Staff, and made regular visits to the county jail which he had served as physician for 13 years, besides treating his private patients.

Doctor O'Connell was born December 30, 1877, in Lewiston, the son of John B. and Ann L. McCarthy O'Connell. He attended local schools in Auburn, the Edward Little High School, and was graduated from the University of Vermont Medical School in 1904. He interned at the Massachusetts General Hospital, the A. O. E. J. Kelly Clinic in Philadelphia, and at St. Mary's General Hospital, Lewiston. He began his practice in Lewiston in 1905.

Doctor O'Connell was a member of the Androscoggin County Medical Society, the Maine Medical

Association, and the American Medical Association, and of the Knights of Columbus, and St. Patrick's parish.

Always interested in politics and civic affairs, he had been urged several times to accept the office of mayor of Lewiston. He refused this office but had served as an alderman, and for many years as city physician. He was a trustee of the People's Savings Bank, and a Vice-President of the First Federal Loan and Savings Bank.

In August, 1916, he married Claire E. Nugent of Holyoke, Massachusetts, who survives, as do four children, George B., Jr., senior medical student at the University of Vermont; Mary Elizabeth, senior student nurse at St. Mary's Hospital; Claire L., a senior at Seton Hill College, Greensburg, Pennsylvania, and Richard, a junior at Lewiston High School. Also surviving are a sister, Lucy O'Connell Desaulniers, M. D., and a brother, Alfred C., both of Lewiston.

County News and Notes

100% Paid-Up Membership for 1942

Piscataquis County Medical Society

Androscoggin

Graduate Teaching Clinic at the Central Maine General Hospital, Lewiston, Maine

The fourth Teaching Clinic of the twelfth annual series was held on Friday, January 23, 1942.

The program, as follows, was conducted by Elliott C. Cutler, M. D., Mosley Professor of Surgery, Harvard Medical School; Surgeon-in-Chief, Peter Bent Brigham Hospital, Boston; Medical Director of Civilian Defense, Commonwealth of Massachusetts.

9.30 A. M. to 12.30 P. M. Presentation of Cases.

3.00 to 5.00 P. M. Case Presentations and Ward Walks.

8.00 P. M. Evening Address: Medicine in National Defense: Doctor Cutler.

Cumberland

The 162nd meeting of the Cumberland County Medical Society was held Friday, January 16, 1942, at the Eastland Hotel, Portland, Maine. The President, Roland B. Moore, M. D., called the meeting to order at 7.30 P. M.

The address of the evening was given by Duncan Reid, M. D., of Boston, whose subject was *Toxemias of Pregnancy*. His paper was discussed by Drs. Harold B. Everett, and C. Alexander Laughlin.

Dr. Charles Robie of Boston, was present and spoke on *Pharmacology of Veratrone Viride*.

A joint Committee consisting of the Committee on Public Relations and the Legislative Committee was appointed to make a study of the requirements for the training and registration of Nurses and to report at a later meeting of the County Society.

A Committee consisting of Drs. Owen Smith, Albion Little, and Earl S. Hall was appointed to draw up resolutions on the death of Charles B. Sylvester, M. D.

Ralf Martin, M. D., of Portland was elected to membership.

The meeting was preceded by a discussion of *Obstetrical Care in the Event of Disaster*, conducted by Roland B. Moore, M. D., at the Maine General Hospital, at 5.00 P. M.

EUGENE E. O'DONNELL, M. D.,
Secretary.

Penobscot

The monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday, January 20th, with the President, A. W. Fellows, M. D., presiding.

Doctor Hans Weisz of Howland was elected to membership.

H. L. Robinson, M. D., of Bangor, reported a meeting of the district group of the Farm Security Administration. It was moved, seconded, and voted that the Penobscot County Medical Association go on record as approving the plans for medical help proposed by the Farm Security Administration, and further moved, seconded, and voted that a committee of two be appointed to confer with other district representatives concerning the business details of the plan proposed. These plans are to be presented at the next meeting of the County Association.

H. L. Robinson, M. D., representing the County on the Medical Civilian Defense Organization, reviewed the general plans for first aid. Allan Craig, M. D., State Director of Medical Defense, spoke on the national, sectional, and state set-up.

The scientific portion of the evening consisted of a paper on: "Prophylactic Sulfonamide Therapy" presented by Champ Lyons, M. D., Associate in Surgery and Instructor in Bacteriology, Harvard Medical School.

There were 64 present.

FORREST B. AMES, M. D.,
Secretary.

York

The annual meeting of the York County Medical Society was held at the Normandie in Scarborough, Maine, January 7, 1942.

Officers elected for the year were:

President: Carl E. Richards, Alfred.

Vice-President: Arthur J. Stimpson, Kennebunk.

Secretary-Treasurer: C. W. Kinghorn, Kittery.

Board of Censors: J. R. LaRoche, 1942; Paul S. Hill, Jr., 1943; J. H. MacDonald, 1944.

Delegates to the annual session of the Maine Medical Association: Edward M. Cook, York Harbor; Waldron L. Morse, Springvale; and J. H. MacDonald, Kennebunk.

Alternates: C. E. Richards, Paul S. Hill, Jr., and C. W. Kinghorn.

J. L. Pepper, M. D., District Health Officer, gave a very interesting talk on *Infantile Paralysis*.

C. W. KINGHORN, M. D.,
Secretary.

New Members

Cumberland

Ralf Martin, M. D., 58 Deering Street, Portland, Maine.

Penobscot

Hans Weisz, M. D., Howland, Maine.

York

Walter D. Mazzacane, M. D., Old Orchard, Maine.

Win Promotions

The following members in active duty have been promoted from lieutenants to captains:

Herbert T. Clough, Jr. (Penobscot County Society member).

Edwin R. Irgens (Kennebec County Society member).

Wedgwood P. Webber (Androscoggin County Society member).

Notices

Annual Prize in Obstetrics

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons announces its annual "Foundation Prize." Three copies of all manuscripts and illustrations entered in a given year must be in hands of the secretary of the association before June 1. Manuscripts must be limited to five thousand words and be typewritten in double spacing on one side of the sheet. Illustrations should be limited to such as are required for a clear exposition of the thesis. A nom de plume must be used. The prize will be \$150, and those eligible to compete include internes, residents or graduate students in obstetrics, gynecology or abdominal surgery and physicians who are actively practicing or teaching obstetrics, gynecology or abdominal surgery. Dr. James R. Bloss, 418 Eleventh Street, Huntington, W. Va., is secretary of the association.

Panel Discussions Available to County Medical Societies

The following Panel Discussions have been made available for presentation before County Medical Societies by the Committee on Graduate Education:

1. Coronary Disease—E. H. Drake, M. D., Portland, Chairman.
2. Complications of Pregnancy—R. B. Moore, M. D., Portland, Chairman.
3. Disease of the Liver and Bile Passages—J. Gottlieb, M. D., Lewiston, Chairman.
4. Endocrine Dysfunction — James Carswell, M. D., Camden, Chairman.
5. Syphilis—O. R. Johnson, M. D., Portland, Chairman.
6. Chemotherapy—F. T. Hill, M. D., Waterville, Chairman.
7. Appendicitis—I. M. Webber, M. D., Portland, Chairman.

Application for these panels should be made to the Chairman one month in advance.

Staff Meetings — Thayer Hospital, Waterville, Maine

Staff meetings are held every Thursday evening at 7.30 at the Thayer Hospital, except for the third Thursdays from September to May inclusive, when they are omitted because of the meeting of the Kennebec County Medical Association. The Profession is cordially invited to attend these meetings. In addition to clinical case studies, special features are included in certain of the programs, such as panel discussions, guest speakers, etc.

Tumor Clinics

- Bangor:** Eastern Maine General Hospital
Thursday, 11.00 A. M.-12.00 M.
Director, Magnus F. Ridlon, M. D.
- Lewiston:** Central Maine General Hospital
Tuesday, 10.00 A. M.-12.00 M.
Director, E. C. Higgins, M. D.
St. Mary's General Hospital
Wednesday, 4.00 P. M.
Director, R. A. Beliveau, M. D.
- Portland:** Maine General Hospital
Thursday, 11.00 A. M.-12.00 M.
Director, Mortimer Warren, M. D.
- Waterville:** Sisters Hospital
1st & 3rd Thursdays, 10.00 A. M.
Director, B. O. Goodrich, M. D.
Thayer Hospital
2nd & 4th Thursdays, 10.00 A. M.
Director, E. H. Risley, M. D.

WANTED

Wanted — Assistant physician; single man or woman, or married man without children; beginning salary \$1820. to \$2340. plus maintenance; applicant must be U. S. citizen. Apply to Carl J. Hedin, M. D., Superintendent, Bangor State Hospital, Bangor, Maine.

Have You Paid Your 1942 State and County Dues?

Continued from page 30

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NATIONAL ASSOCIATION OF CHEWING GUM MANUFACTURERS



The Journal of the Maine Medical Association

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No. 3

*The Toxemias of Pregnancy**

C. WESLEY SEWALL, M. D., Professor of Obstetrics, Boston University School of Medicine, Boston, Massachusetts.

In 1937, at the suggestion of Dr. Foster Kellogg of Boston, the American Committee on Maternal Welfare appointed a committee to attempt to secure a uniform classification of the toxemias of pregnancy. The result of this committee's work is the classification as follows¹:

1. Hypertensive disease
 - a. Benign or essential, mild or severe
 - b. Malignant
2. Renal disease
 - a. Chronic vascular nephritis or nephrosclerosis
 - b. Glomerular nephritis
 1. Acute
 2. Chronic
 - c. Nephrosis
 1. Acute
 2. Chronic
3. Pre-eclampsia
 - a. Mild
 - b. SevereEclampsia
 - a. Convulsive
 - b. Nonconvulsive
4. Vomiting of pregnancy
5. Unclassified toxemias

A brief explanation of these headings will clarify them:

Hypertensive disease signifies an elevated blood pressure without apparent associated pathology except in so far as the vascular system may be involved. It may be benign or malignant. All usual factors concerned in the vascular system are normal except that peripheral resistance is increased, probably because of arteriolar spasm, nervous or chemical in origin, or in more severe cases there may be definite morphological change in the wall of the arterioles evidenced by a thickening of the media of the renal arterioles.

The common finding in hypertensive disease is an elevation of blood pressure without renal signs such as proteinuria or cell products. All other findings are relatively normal. The previous history may reveal no signs or symptoms of the disease which, under the stress of pregnancy, become manifest. The malignant form, with its morphological changes, is markedly aggravated by pregnancy and is positive proof that pregnancy should be interrupted. Usually, in the malignant type, signs and symptoms are present before the twenty-fourth week of

* Presented before the Kennebec County Medical Association, September 17, 1941, at Gardiner, Maine.

pregnancy, and this fact is of the greatest significance in the final outcome for mother and child.

Renal disease is not a true toxemia of pregnancy but a serious complicating factor of pregnancy. There are three accepted forms of renal disease: (1) the glomerular type, rarely seen in the acute stage; (2) the arteriosclerotic or nephrosclerotic type; and (3) the nonhemorrhagic or nephrotic type. The glomerular type runs an acute phase, either heals or passes on to a chronic, edematous type ending in uremia. It may, and most frequently does, develop into the nephrosclerotic type. The nephrosclerotic form is the one most frequently encountered during pregnancy. Its origin is many times obscure, or may date back to previous scarlet fever, other infectious disease, or a preceding toxemia or eclampsia. It involves the heart and vascular system, and so cardiac failure, vasculorenal, or uremic symptoms may result in the malignant form of the disease. The degenerative or nephrotic type is characterized by excessive edema, albuminuria, but little if any hypertension, and ends in uremia. It is more frequent than acute glomerular nephritis but may be a terminal stage of both glomerular and nephrosclerotic types, particularly when it is a wet nephrosis. It is difficult to evaluate renal disease during pregnancy, and the final diagnosis must often be made six or more weeks postpartum, when the persisting renal signs indicate their kidney origin. It is, however, particularly important to recognize renal disease as the causative factor because such disease frequently manifests itself before the twenty-fourth week or soon after and is then the ultimate factor in determining the prognosis.

Pre-eclampsia mild is most frequent in the last two months of pregnancy and is the most common of all the toxemias. It is that condition in which a moderate rise of the systolic pressure to about 140 to 160 mm. of mercury and a diastolic blood pressure of 90 to 100 mm. of mercury occurs. There is moderate albuminuria and slight edema, which may be absent. No retinal changes are evident. Few progress to eclampsia, but all should be considered as potentially possible of doing so. Medical treatment is usu-

ally sufficient to correct it, but one should always be imbued with a healthy respect or even fear of mild eclampsia. Cases so treated will yield much better results for both mother and child.

Pre-eclampsia severe becomes evident after the twenty-fourth week of pregnancy. It is characterized by a continuous blood pressure of more than 160 mm. mercury, a diastolic pressure of more than 110 mm. mercury, marked proteinuria (0.6 gm. per 100 cc. or more). Edema is severe, retinal edema is often present. The symptoms tend to increase in severity in spite of therapy. The symptoms suggestive of impending eclampsia frequently appear, such as headache, blurring vision, vomiting, drowsiness or irritability with confusion, or, among the most reliable warnings, epigastric pains.

Eclampsia of the convulsive type is probably a transition of severe pre-eclampsia with convulsions added and the definite morphological changes in the liver. The renal changes are also probably the result of the convulsive seizures because so many times no residual evidence is later found. Occasionally, convulsions do not occur but coma and cytological changes are nevertheless present.

Vomiting of pregnancy is considered because of its relation to toxemia, particularly in its pernicious form. About 50% of pregnant women exhibit nausea and vomiting beginning about the sixth week and terminating about six to eight weeks later. It is amenable to treatment and should be relieved, whether by suggestion or therapy. In the infrequent cases when it becomes intractable, it is named hyperemesis gravidarum and is a serious disease. The changes in body metabolism produced by hyperemesis gravidarum are the accumulative results of dehydration and starvation with incomplete oxidation characterized by reduced carbon dioxide combining power, increased acetone bodies, uric, amino and lactic acids, and slightly increased non-protein-nitrogen. If such a case is neglected, torpor and coffee-grounds vomitus appear; oliguria albuminuria, casts, blood make their appearance, and jaundice with hepatic tenderness are evident. It may then be too late to cure the

patient by abortion because of profound tissue damage.

Unclassified toxemias are those which are impossible to diagnose during the pregnant stage because of the confusion of symptoms, which do not clearly indicate any one or more of the classifications. Under such heading are conceivable such conditions as drug poisonings such as chloroform. Weeks after delivery, when further study is pursued, most of these cases fall into one or the other classification. This is particularly true of the obscure hypertensive and vasculorenal conditions. It is well to bear in mind that drugs taken for the relief of chronic pain may produce toxic states.

DIFFERENTIAL DIAGNOSIS

A brief outline of the headings has been given. The great problem of the clinician is how to diagnose and classify patients under these different classes. It is frequently very difficult or impossible to diagnose cases clearly during the immediate and very important pregnant state. One condition may blend with another, utterly confusing the picture, in which case it will not be possible to correlate the findings until the late puerperium. However, whenever possible, it is very important to be able to recognize definitely each condition. This is particularly true in the classification of hypertensives and renal conditions, especially as they can manifest themselves early or late in pregnancy. Again one must face the grave responsibility of passing judgment on whether or not a given individual should be allowed to go to term because of severe residual damage or be allowed a future pregnancy. Severe pre-eclampsia and eclampsia do not tend to repeat themselves;² conversely some give evidence of permanent renal or hepatic damage. Malignant hypertension and severe renal conditions increase the increment of lasting tissue damage with each pregnancy, and further pregnancies are therefore contraindicated. With this thought in mind an attempt is now made to further clarify these conditions by brief differential diagnosis including laboratory findings.

Let us first consider hypertensive disease. In the benign form it is probable that little

if any damage will result unless too frequent and too many pregnancies occur. It is very essential to follow up these cases carefully in the late postpartum period for residual signs and symptoms. Most of them will exhibit none. During pregnancy both benign and malignant forms tend to make their appearance early, as evidenced by moderate or severe elevation of the blood pressure. This hypertension may have been latent but becomes accentuated by gestation. Albuminuria is not present, the most important changes being present in the vascular bed in the form of arteriolar renal resistance or, in the malignant form, thickening of the media of the renal arterioles with general arterial degeneration. In this form there is often a diffuse retinitis with edema of the discs. A careful history may elicit a previous story of disease or heredity.

The differentiation of renal disease from pre-eclampsia is important because the former is as a rule the third most frequent cause of toxemia and tends to appear early in pregnancy. It is not so essential to diagnose the type of renal disease as it is to realize that renal disease is the causative factor. The three types have previously been discussed. A known previous history of nephritic process simplifies the diagnosis. So, also, a history of scarlet fever, frequent sore throats, or other infectious processes or previous toxic pregnancy. Nephrosclerosis is the most common type. Urologists suggest a previous pyelonephritis of long standing as a causative factor. The symptoms are commonly headache, dizziness, visual disturbances; edema may or may not be present, the blood pressure is elevated to moderate or high degree depending on the degree of renal involvement. Albuminuria is present. There symptoms as a rule appear earlier in renal disease than in pre-eclampsia. In the severe forms they are evident before the twenty-fourth week and are diagnostic. The urea clearance is low; renal function by phenolphthalein is also lowered. The latter should be accepted with reservations because of the fact that dilated, tortuous ureters can act as a reservoir and retain sufficient urine to upset the value of the test.³ However, renal function is seldom lowered in pre-eclampsia. An urea clearance of 50% or less is positive

proof of renal insufficiency. Ophthalmoscopic examination gives valuable differential diagnosis when it is present. Too many times in mild renal states it is absent. Retinal hemorrhage and albuminuric retinitis are present in renal disease, are rare in pre-eclampsia according to Miller.⁴ However, these findings are not always present. A rise in non protein nitrogen points toward renal origin. Also many renal patients are unable to concentrate to 1.021. Cardiac findings which are abnormal, such as enlargement, further clinch the diagnosis. It is the absence of the majority of these findings that make the diagnosis difficult between kidney and pre-eclamptic states. In such cases, the diagnosis is not assured until long after the delivery when the continued high blood pressure, albuminuria, non protein nitrogen retention, indicate renal disease rather than pre-eclampsia. The nonconvulsive form of eclampsia may be confused with the uremia of advanced renal disease but in such cases the above named findings are usually so definite as to clear the diagnosis easily.

Pre-eclampsia mild is the most frequent toxemia, occurring in the last two months of pregnancy. It shows a moderate rise in blood pressure (140-160/90-100), moderate or absent albuminuria, normal urea clearance, non protein nitrogen and renal function. The Mosenthal test is normal. This condition is the "low reserve kidney," formerly so designated by Stander. Postpartum there is a rapid disappearance of symptoms and a return to normal.

Severe pre-eclampsia is probably the precursor of eclampsia. It is differentiated from mild pre-eclampsia and renal disease by its sudden accentuation of symptoms. The blood pressure rises above 160/90 to 200/110 or more. Albuminuria is marked, a three plus being common, or ten or more grams per 100 cc. Uric acid rises to 5 mgs. or more, non protein nitrogen is normal, oliguria is frequent even to approaching anuria; edema increases, there is rapid increase in weight indicating water retention, the eye-grounds show hemorrhages but no albuminuric retinitis, occasionally partial retinal detachment. Sometimes these eye findings are absent yet amaurosis is evident. These cases suggest a toxic edema of the retina. Severe

headache, lassitude, drowsiness, or epigastric pain appear to complete the picture.

From this point on is a short step to eclampsia with its convulsions, coma, oliguria or anuria, marked albuminuria, blood and casts of all kinds. Detachment of the retina may occur, edema becomes general, blood pressure is well over 200 mm. with a very high diastolic reading; non protein nitrogen becomes high but soon returns to normal with improvement in the patient. Uric acid is above 5.5 mg. carbon dioxide combining power is lowered.

PROGNOSIS

Severe hypertension: pregnancy is contraindicated and the uterus should be emptied as soon as the diagnosis is made. Its occurrence in the early months of pregnancy helps in the diagnosis. Mild hypertension should be viewed with suspicion because of the tendency of pregnancy to increase the damage to the vascular system.

Renal disease is a grave complication of pregnancy. Pregnancy shortens the life of these patients with each succeeding pregnancy. The prognosis for the child is only fair as the multiple infarction of the placenta as well as the direct effect of the nephritis, affect its nutrition and development. These infants often die in utero and are expelled as macerated, premature fetuses. They are underweight and appear to lack development yet it is well known that they survive in a greater percent than normal infants of similar weight and size.

Pre-eclampsia is mild. Rest in bed, dietary restriction with low salt is followed by improvement. If it recurs in subsequent pregnancies it is usually of the same character as the first. Reid and Teel⁵ advise caution in the number of pregnancies allowed. They believe a certain percent of these cases show permanent hypertension and possible residual renal disease.

Pre-eclampsia, severe, may produce permanent tissue damage. It may be a transition from the mild. If it does not respond to medical treatment promptly, the uterus should be emptied. One should ever bear in mind the eclampsia can supervene with very little warning.

Eclampsia always carries a serious prognosis. The maternal mortality varies from ten to twenty-five percent or more, the fetal mortality is high, even to forty to fifty percent. Death of the fetus which may occur during the convulsive stage is frequently followed by cessation of fits and recovery. The number of convulsions does not necessarily influence the prognosis although repeated convulsions above ten in number indicate a grave outlook. Rapid weak pulse, high temperature, anuria, jaundice, and inability to sweat are dangerous signs.

Eden⁶ considers any case which presents two or more of the following symptoms as presenting a grave outlook: (1.) prolonged coma; (2.) pulse rate above 120; (3.) temperature 103 or higher; (4.) blood pressure above 200 mm.; (5.) more than 10 convulsions; (6) ten or more grams of albumen in the urine, and (7.) the absence of edema.

Chronic nephritis is apt to follow the severe cases although in the immediate postpartum period recovery appears to be rapid with no residual damage. Autopsies on fatal cases show a thickening of the basal membrane of the glomerular capillaries. The resulting hypertension when this glomerular pathology is present is probably the result of renal ischemia.²

TREATMENT

Nausea and vomiting of pregnancy

There are so many remedies advanced for the treatment of this condition that their very number defeats them. However, modern women demand treatment for this most distressing condition of early pregnancy. Our routine is as follows: an explanation of this reflex phenomena with proper encouragement to reinforce their morale. Thiamin hydrochloride, one mg. three times daily, a high carbohydrate diet, correction of constipation, adequate fluid intake, frequent small meals. Formerly no further attempt at treatment was made beyond this point without hospitalization. Now, if success does not follow this regime, sodium amytal in one grain doses is administered as needed, up to 6 grains daily. If rejected by mouth, it is given in solution by rectum with a one ounce rectal syringe. It is well tolerated by rectum and is equally efficient.

In the last ten years the author has had but one instance among his private cases with this regime that has required hospitalization. In neglected cases or those in which no opportunity for treatment has been offered, dehydration and mild inanition become a factor. These cases should be hospitalized immediately. The same regime plus intravenous 5% glucose in saline is introduced until the blood chlorides are normal. Thiamin hydrochloride may be given these cases with the glucose in three to five mg. doses. Occasionally a patient presents herself who is determined to be aborted for various reasons. Usually these individuals yield to more vigorous or semibrutal treatment such as complete isolation from family and friends and the repeated use of blunt hypodermic needles or gastric lavage. Occasionally such a patient, after repeated admissions to the hospital for treatment, presents a problem closely resembling true pernicious vomiting characterized by its extreme dehydration, starvation, and incomplete oxidation of fatty acids.

Hyperemesis Gravidarum is much more serious in import. Dehydration and starvation are its early to middle symptoms. Later there may be hepatic degeneration. Such cases should be hospitalized immediately and their tissue fluids promptly replaced by five percent intravenous glucose in saline with thiamin hydrochloride. The pelvis should be explored for pelvic abnormalities, that is uterine displacement, ovarium heoplasms, etc. A pessary usually will hold a uterus in place. The carbon dioxide combining power should be checked for a sudden fall if vomiting persists. Should the latter continue in spite of treatment, jaundice, continued loss of body weight, a somnolent or comatose state, a rapid, thready pulse up to 120 or more, coffee grounds-like vomitus appear, the pregnancy must be terminated. Hepatic tenderness is an ominous sign. Too often the termination comes too late for recovery. Glucose should be given in five percent solution intravenously following delivery to protect the liver.

Hypertensive Disease and Renal Disease

The treatment of both these conditions should be as one. Mild hypertensive disease or renal disease both carry a definite promise of a certain amount of residual damage. The

significance of these conditions should be explained to the family and then pregnancy should be allowed only upon full understanding of the risks involved. Close observation, frequent examination, proper rest are essential.

Severe hypertensive or renal disease fall under more or less the same category as regards treatment. Pregnancy should be terminated as soon as serious signs appear, without attaching too much importance to the life of the infant. If pregnancy is allowed to progress until viability of the child, too frequently much permanent renal damage occurs which will definitely shorten the mother's life. In addition the fetus may suddenly die in utero as a result of the renal toxemia or it may not have enough development to survive. This combination of unfortunate events all too often occurs in well meant efforts to secure a living child.

A general policy for treatment of all non-convulsive toxemias is as follows: admit to hospital all patients who show more than the slightest possible trace of albumen, a systolic blood pressure of 150mm. or over, or a diastolic pressure of 100 or more. If the systolic blood pressure was originally 90 or 100, a rise to 130 or 140 is just a significant of toxic disturbance as the higher arbitrary figure. Complete bed rest. An intake and output chart is started to measure the amount of excretion. If edema is marked, less fluid is given than the output each day. Diet: Salt-free, protein sixty grams, fat thirty grams, carbohydrates four hundred grams: this gives about two thousand calories. The generous amount of protein is to replace protein loss and help maintain the blood proteins, particularly if proteinuria is marked. All pregnant patients tend to show some hypoproteinemia⁷ and this is increased with proteinuria. Estimation of the serum protein is therefore a valuable procedure. Dieckmann⁸ claims hypoproteinemia is not present in toxemia and that the edema is due to changes in the permeability of the capillaries and cell wall. However, pulmonary edema does occur in serious cases of pre-eclampsia and eclampsia and we believe with Strauss⁷ that the maintenance of proper serum protein levels is essential to prevent acute edema accidents. Therefore, when the serum proteins are low

it can be very dangerous to give excessive amounts of intravenous fluids as they may precipitate an acute edema. Transfusions of plasma are to be strongly considered in such cases to increase the serum proteins. Edema of the legs or other parts of the body is abnormal.

Water retention as evidenced by sudden increase in weight over a short period of time is abnormal but characteristic of toxemias, particularly the severe renal, pre-eclamptic and eclamptic types. If edema is marked and excessive weight gain is present, the fluids should be restricted, salt eliminated and magnesium sulphate given by mouth in sufficient dosage to secure free catharsis. Edema usually promptly lessens and there is considerable weight loss. *Hypertensive and renal cases*: complete rest in bed with sedation, phenobarbital, one-half to one grain three times a day.

With this policy of treatment many cases can be carried to term or at least to viability. The pre-eclampsies often clear up to the point of a mild albuminuria, but this is apt to persist until after delivery.

When no improvement or when aggravation occurs, pregnancy should be terminated. The following criteria are indications for the interruption of the pregnancy:

- (1). Increase of blood pressure above 170, or persistence at this point. A high diastolic pressure, that is 120 or more.
- (2). Sudden occurrence of marked edema.
- (3). Increase of proteinuria to five grams per twenty-four hours or three plus.
- (4). Non protein nitrogen fifty mgs. or more.
- (5). Appearance of cerebral symptoms: severe headache, visual disturbances, vomiting, and particularly epigastric pain. This latter is an ominous sign of impending convulsions and must not be disregarded. A sense of constriction about the lower chest and waist is also presumptive evidence of convulsive seizures.
- (6). Pulse rate above 120.
- (7). Oliguria or anuria.
- (8). Appearance of jaundice indicating periportal vascular pathology.

(9). Cyanosis: if pulmonary edema is beginning there has been too long a delay or the serum proteins are too low.

Induction of Labor: Depends on the condition of the cervix. If the latter is soft, dilatable, and well taken up, simple rupture of the membranes is sufficient. In other cases, if the cervix is not too well effaced but is not too long, a vaginal pack can be inserted and left eight to twelve hours. In some cases the pack itself induces labor; in others it prepares the cervix so that rupture of the membranes will be successful in starting labor. In a few cases the insertion of a bag is necessary. Judgment is required in the selection of this procedure. The cervix should be at least partially ready for labor and not too long. Otherwise labor will be long and delayed convulsions may ensue and the fetal risk will be great. If contractions do not occur within eight hours, one-half to one minim doses of pitocin may be cautiously administered every one-half hour until contractions are regular. Pitocin should be so used with great caution because of its violent effect on the uterus in sensitive individuals and its possible tendency to increase oliguria. Whether to pay much attention to the reduction in urine is a debatable point which we think is overbalanced by the urgent need for delivery. When the cervix is fully dilated and the presenting part is on the perineum, an episiotomy with low forceps will decrease the trauma to the infant and shorten the labor to maternal advantage. If the breech presents, extraction is easier on the infant with a previous episiotomy. Anesthesia should be local.

In a few selected cases, where a long, hard, unprepared, primiparous cervix is offered, or particularly where disproportion is present, low cervical section may be indicated as the best method of delivery. Section definitely increases the maternal risk and does not necessarily help the infant. Unfortunately these infants may and do die postnatally from the profound effects of the maternal toxemia. Section should therefore be reserved for those evident cases of evident disproportion, previous obstetrical disaster, or those uncommon cases where the infant is either obviously in excellent condition or

much desired. Cesarean section definitely increases the mortality in the toxemic state. Local or spinal anesthesia is the anesthesia of choice; if not possible, gas oxygen ether may be used. General anesthesia however, has a distinct tendency to cause a sudden oliguria or definite anuria.

Eclampsia

The conservative treatment of this condition yields better results than bold methods. The longer convulsions last before delivery or the greater the number of convulsions, the greater the mortality for mother and child.

Obstetrical and medical treatment is superior to surgical treatment or premature meddling. Many cases go into spontaneous labor and solve their own problem. In general, the following procedures have given results, while not satisfactory, are as good in their outcome as any.

Complete bed rest, constant observation, the temperature, pulse, and respiration, blood pressure and urinary output should be recorded every two hours. Of course, the tongue and mouth should be protected with a suitable mouth gag.

Convulsions: Morphine sulphate grains one-quarter subcutaneously often enough (never less than hourly) to control the convulsions or to slow the respirations down to fifteen per minute. Magnesium sulphate, twenty cc. of a ten percent solution intravenously, twenty cc. of a ten percent solution intramuscularly. Repeat in ten cc. dose of ten percent solution intramuscularly if fits continue. A total of not more than fifty to eighty cc. should be used in twenty-four hours.

Oxygen is given freely for cyanosis.

An inlying catheter is installed.

Nembutal, grains one and one-half, are given per os or rectum and repeated as needed. Barbiturates help to control hypertension. Intravenous glucose, two hundred to four hundred cc., fifty percent solution, is given if urinary excretion is diminished; five hundred to one thousand cc. of a twenty percent solution of glucose may be given two or three times daily to promote urinary volume. Saline should not be used with intravenous solutions. Caution should be used in the

amount of fluid administered because of the danger of producing pulmonary edema.

If the patient is in labor and making progress allow nature to complete the process. If labor is slow, rupture of the membranes will accelerate the contractions. If the patient is not in labor, we may wait for return to consciousness and diuresis before inducing labor. On the other hand, if diuresis does not occur, nothing is lost in rupturing the membranes, provided no anesthesia is given. After establishment of diuresis and an improved general condition, induction may be performed by the previously described methods. The use of cesarean section is open to question. If the patient is anuric and unresponsive, death will probably ensue, regardless of method or pelvic disproportion. We have had best results in reserving cesarean sections when needed for disproportion and only for this indication, until the convulsive state is under control, diuresis, consciousness, edema, blood pressure, and so forth improved. This we consider the only suitable time when section may be performed to advantage of the patient.

Food is not given per os until the intestinal function is restored and the patient conscious. Then fruit juices and water are given per os.

PROPHYLAXIS

Frequent prenatal visits are essential to enable one to recognize toxic states. Careful histories often will elicit previous cardio-renal or hypertensive signs. Routine urinalyses will find albuminuria. A sudden, rapid gain in weight, even without edema should make one suspicious, always ruling out overeating. Edema and a slight rise in blood pressure are portentous. It is better to err on the side of overzealous care; but it is absolutely necessary to interpret one's finding correctly and to treat accordingly. Laboratory findings are of the greatest value when present, but their absence should not lull one into a sense of security. Irving⁹ has written

an axiom regarding this which I quote: "the practitioner who takes an adequate history, who examines the urine often and carefully for albumen, blood and casts, and who measures the blood pressure frequently, requires no chemical laboratory to make the diagnosis of albuminuria and hypertension, nor does he need its aid to tell him whether his patients are growing sicker or improving."

It is highly important to differentiate between the different types of toxemia of pregnancy, particularly from the point of prognosis and treatment. Often, however, no differentiation is possible until the late puerperium. These cases should be followed for a full year postpartum.

SUMMARY

A brief description of the new classification of toxemias according to the ideas of the American Committee on Maternal Welfare has been given.

An attempt has been made to clarify the diagnostic signs and symptoms and the danger points for the clinician.

Modern ideas as applied to treatment of these conditions are set forth.

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Three million dollars a month is being spent on tuberculous soldiers today. Flatly, it costs around \$10,000 to induct a man suffering from tuberculosis, and \$50.00 a

month for the rest of his life, plus compensation benefits for his dependents after his death. — D. B. CRAGIN, M. D., Med. Dir., Aetna Life Ins. Co.

*Acute Intestinal Obstruction: Some Important Points in Its Diagnosis and Treatment**

By HARRY BRINKMAN, M. D., Wilton, Maine

The importance of early diagnosis of bowel obstruction and its immediate and proper treatment is apparent. With continued obstruction and increasing distension the viability of the bowel is threatened, gut permeability is altered, the chemistry of the body is upset, and a fatal outcome is almost certain to ensue unless the condition is recognized in time and overcome. Such varied pictures are presented by obstructions in the bowel as a result of the type and completeness of the obstruction and its level in the intestinal tract, that the diagnosis is often obscure if not impossible to make. There are however certain basic features common to all acute obstructions which are important and which must assist one in arriving at a correct diagnosis. These have been repeatedly emphasized, particularly by Wangenstein.¹ These three basic features are, (1) intestinal colic, (2) vomiting, and (3) distension.

When there is obstruction to the normal flow of the intestinal contents, as they are propelled by peristalsis, tension begins to develop above the point of obstruction, and, tension in the bowel wall is the adequate stimulus for pain. Probably no case of acute obstruction occurs without pain and this pain is of the type which is commonly called intestinal colic; pain which is synchronous with the passing of a peristaltic wave through the portion of the bowel under abnormal tension. As the wave of contraction approaches the point of obstruction with its beginning accumulation of intestinal contents, increased pressure develops and the contents can escape only in a reverse direction, if the obstruction is complete, and as the gas and liquid pass reversely through the oncoming wave, borborygmus develops. This is always present in the early stages of obstruction and is important in diagnosis. Unfortunately this phase has passed in many of the cases when first seen but a history of this phenomenon

may often be obtained. If present, it must then be determined if this colic is due to obstruction or to some other form of intestinal disturbance such as food indiscretions, dysentery, etc.

As the intestinal contents accumulate and are reversed by the persistent peristalsis they gradually reach the upper levels of the intestinal tract and vomiting occurs. Normally about 7 liters of fluids of various types are poured into the intestinal tract daily and if obstruction occurs a point of spilling over must soon be reached and is usually seen in cases of small bowel obstruction. Due to the presence of the ileo-cecal valve, which is competent in many cases, and due to the difference in the diameter and thickness of the walls of the small, as compared to the large, intestine vomiting in cases of colonic obstruction is not frequently seen. So-called fecal vomiting is usually indicative of small bowel obstruction.

Distension above the point of obstruction of a great or less degree is a uniform finding in obstruction. It may be evident on physical examination or it may only be demonstrated by X-ray. Wangenstein and his associates² have demonstrated that the major portion of this distension is due to swallowed air, approximately 68%. The amount of distension will obviously depend upon the site of the obstruction and its completeness but distension is a universal finding either on physical examination or by X-ray.

The presence of obstruction may often be easily determined but it is important to know how the bowel is obstructed. Obstruction may occur as a result of innumerable conditions but fundamentally there are but two main types, (1) Simple obstruction of the bowel lumen, either from within or without, (2) strangulation with either complete or incomplete interference with the blood supply of the involved portion. Clinically differen-

* Presented at the 89th Annual Session of the Maine Medical Association, York Harbor, Maine, June, 1941.

tiation may often be difficult but frequently physical examination alone may reveal which type is present. Strangulating obstructions are usually emergencies, for necrosis of the involved loop may occur very rapidly, whereas in simple obstructions conservative methods of treatment are proper unless the distension is extreme, particularly those involving the colon. In simple obstructions there is usually no tenderness or rigidity of the abdominal wall while in strangulation obstructions there is a sero-sanguinous exudate which escapes into the peritoneal cavity producing hyper-sensitivity. Not infrequently localized tenderness may be elicited either on abdominal palpation or on rectal or vaginal examination. Strangulation obstruction should be suspected if the onset is sudden with severe pain, vomiting, signs of peritoneal irritation, tenderness and splinting, leucocytosis, and often associated shock.

External herniae, intussusceptions of infancy and childhood, and obstructions of the left colon can usually be identified and commonly present no great difficulties in diagnosis. Obstructions of the small intestine present the greatest difficulties and often cannot be localized. Adhesive bands most commonly involve the small bowel and are by far the most common cause next to that of external herniae. Occasionally acute inflammatory lesions with simple obstruction may simulate that of a strangulating type with intestinal colic and localized tenderness. This is a difficult differential diagnosis to make and an ill advised exploration may easily change a localizing inflammatory lesion into a spreading peritonitis.

The phenomenon of visible peristalsis which is so commonly associated with intestinal obstruction is unfortunately absent in most acute cases. In these cases the circular muscle fibers have had no time for hypertrophy and visible peristalsis often is not present. Its presence is of course almost pathognomonic but its absence should not mislead one.

Routine laboratory findings give little specific information in the diagnosis of obstruction. Serious decrease in the blood chlorides and increase in the carbon-dioxide combining power of the blood occurs most commonly in high obstructions but these findings are not

indicative of obstructions for, they occur in many other types of lesions which are associated with vomiting and electrolyte loss.

The X-ray may however give valuable information as to the presence, degree, and site of obstruction. Localization of obstructing lesions in the colon by X-ray may often be precise, but in the small intestine it is notoriously difficult. One should be very reluctant to make a diagnosis of intestinal obstruction on the basis of X-ray findings only. The interpretation of the film should be related to the clinical picture as obtained from a detailed history of onset, its progress, and physical examination. Usually two scout films should be taken, one in the upright position to determine the presence or absence of gas in the free peritoneal cavity, and the number and site of fluid levels. If the patient is too sick for an upright film one should be taken in the left recumbent position and a search made for gas between the right border of the liver shadow and the lateral abdominal wall. A second film should be taken with the patient supine to ascertain the degree of distension and for localization of the distended loops. It is well to remember, as pointed out by Ascroft and Samuels³ that false fluid levels may be seen in the colon and terminal ileum when an enema has been forced high and incompletely evacuated. For this reason they emphasize that films should be taken if possible before an enema is given.

The number of fluid levels is proportional to the duration and lowness of the obstruction. Usually when the obstruction is in the small bowel there is rarely any colonic shadow and the cecum contains no more than a trace of gas. Obstruction can rarely be accurately localized to any particular segment of the small bowel except very occasionally with the Miller Abbott type of tube, but a rough estimate can often be made. If jejunal loops alone are seen, usually in the left subphrenic region, the obstruction is probably high. If ileal loops are seen, usually in the right side of the pelvis, the obstruction is probably low. Localization in the colon can often be done precisely, particularly if distension is not extreme. If distension is extreme however, it may be impossible to demonstrate a mechanical obstruction even with a barium enema. This should not un-

duly delay one in relieving the obstruction because of the danger of perforation in the cecum. Repeated X-ray examination may be necessary and the findings correlated with the physical findings for they may change appreciably from time to time. This is emphasized by Brunn and Levitin⁴ who also urge the closest coöperation between the surgeon and the roentgenologist.

The recognition that acute intestinal obstruction is present is often far easier than to determine its cause and to make the proper choice as to treatment. A careful history and thorough physical examination and meticulous and repeated observations correlated with the X-ray findings is essential. The fundamental feature in all acute intestinal obstructions is the presence of so-called intestinal colic, as Wangenstein has so thoroughly emphasized. He stated that "bowel obstruction without intestinal colic does not exist." This is present in the early stages particularly whether the obstruction is high in the small bowel or as low as the rectum. Another important fact to remember is that the ileocecal valve or sphincter in the majority of cases allows for only one-way traffic. In a recent study of the anatomy of this valve, Wakefield and Friedell estimate that this valve is competent in about 50% of patients. However, even if the valve itself is incompetent, the more active peristalsis in the ileum and its greater thickness, and the much greater diameter of the large bowel which results in a much greater total stress in the wall, makes an obstruction of the colon essentially a closed loop. This can easily be demonstrated by blowing up a rubber glove. Although the rubber in the palm and fingers is of equal thickness and strength yet because of the greater surface exposed in the palm this portion will dilate all out of proportion to the fingers. This phenomenon in living tissue is all important for the marked distension soon compromises the blood supply and progressing necrosis may develop and perforation occur. The presence of the ileocecal valve therefore and this difference in the anatomy accounts for the difference in the clinical pictures in obstructions in the small and large intestines. Distension, intestinal colic, nausea and fecal vomiting is indicative of small bowel obstruction whereas distension

and intestinal colic with the persistent absence of fecal vomiting or colored intestinal fluid on gastric aspiration indicates obstruction of the colon. X-ray examination will help confirm this by localizing the distended bowel loops.

Once a diagnosis of bowel obstruction is made and the cause and site reasonably determined, the question arises as to what to do about it. Obviously the rational treatment of any disease or lesion must ultimately be based upon removal of the cause but it must also recognize, if possible, the method by which the cause produces its harmful effects. The intensive work of Wangenstein here again offers us the best explanation of the lethal mechanism. With persistent vomiting it is clear that the loss of digestive and intestinal secretions and electrolytes alone disturbs the chemical balance of the body sufficiently to cause a fatal termination if not corrected. These ill effects however, can be obviated by adequate fluids for an indefinite period provided distension is prevented. If distension is not overcome, a fatal termination will soon ensue even though there may be no demonstrable dehydration or electrolyte imbalance. From these observations it would seem that the distension so impairs the viability of the bowel wall that it becomes abnormally permeable to bacteria and probably other toxic products, the exact nature of which as yet cannot be adequately demonstrated. This applies also to strangulation obstructions with the added factor of blood loss in the involved loop. He states, "It would in consequence appear that the rationale of well-directed therapy should be reduction of intra-enteric pressure by decompression or release of the obstructing agent before the viability of the bowel is impaired."

In general there are two broad methods of procedure in the treatment of obstructive lesions of the bowel, (1) supportive treatment to overcome the harmful effects of the obstruction, and (2) decompression or release of the obstruction. It would seem that the still not infrequent use of smooth muscle stimulants and cathartics to increase the force of peristalsis and the use of large and forced enemas in an effort to overcome the obstruction should in general be as vigorously condemned as their use in such lesions as appendicitis.

Cases are frequently seen where constricting bands or twists in the bowel have so devitalized the wall that it is conceivable that any increased pressure from increased peristalsis or the force of an enema might easily result in a tear. These lesions like so many others require nursing not cursing.

Parenteral fluids have a definite place in the vast majority of cases for overcoming the dehydration and loss of electrolytes incident to vomiting and for replenishing the supply of glycogen due to the inability of the patient to take nourishment.

The work of Collier⁶ and his associates in regard to the fluid requirements of patients is important in this phase of the problem. The amount and type to be given to overcome dehydration, to maintain the blood chloride level, to substitute that lost by aspiration and the insensible loss, and to insure an adequate urinary output can fairly closely be determined by a rule of thumb after the blood chlorides have been raised to a normal level. Fluid aspirated by indwelling duodenal tube should be replaced volume for volume by physiological saline. Enough additional 5% glucose in distilled water to insure a urinary output of 1000 to 1500 cc. daily will usually keep the patient in chloride balance and prevent dehydration. This is particularly true in high obstructions where the electrolyte loss is greatest.

Blood transfusions have a definite place for combatting shock, particularly in those with strangulations where there may be considerable loss of blood from the intestinal tract or into the strangulated loop itself. In other cases of acute obstructions transfusion has but a limited indication.

Any other treatment in these cases must be pointed directly toward the relief of distension and obstruction either by aspiration or by operation. The decision as to whether one should operate immediately or to attempt decompression by aspiration is one that cannot be made with any clear cut certainty in many cases. The time factor in strangulations and in cases of excessive distensions of the colon is important. If one undertakes to treat a case of acute obstruction solely by aspiration for the time being, he must be sure that no clear cut indication for operation exists, and must follow the effects of aspiration and

decompression closely by frequent clinical and X-ray examinations. Successful decompression is evidenced by the decrease in pain, decrease in distension, visualization of gas in the colon by X-ray, decrease in the amount of fluid aspirated, and by tolerance of temporary discontinuance of aspiration without recurrence of pain. The attempt to avoid surgery is commendable and may often be successful but valuable time may be lost if persisted in too long. This is particularly true in using the long double-lumen tube of the Miller Abbott type. This is sometimes a great aid in diagnosis and a valuable means of decompression if the obstruction is relatively low in the small intestine for it also affords opportunity for the absorption of nourishment and fluids above the level of obstruction. There are however certain dangers inherent in its use. The time necessary for its passage may too long delay dealing with a strangulation. Its use may also relieve symptoms without relieving the obstruction or strangulation and mislead one into false security. Obstructions in the colon in general contraindicates the use of suction as a means of treatment except that a short period of aspiration may soon remove gas and fluid from the upper reaches of the intestinal tract and improve the patient's condition for operation.

In the operative relief of obstructing lesions the temptation to do a complete operation is ever present. One is so often inclined to do a finished job and find too late that it is more than the patient will tolerate for these patients tolerate extensive procedures poorly. It is therefore good policy to do the very least that seems necessary. In high obstructions of the small bowel, where a temporary fistula may be the greater of two evils, resection and primary anastomosis may be the procedure of choice but in the lower regions this is rarely true.

Enterostomy, either of the valve type or the production of an external fistula, has somewhat fallen into disrepute. This is probably largely due to its ineffectiveness in cases of ileus. It has further fallen into disrepute because ileus so frequently follows its use as a result of contamination—a fault not of the operation, as such, but of its execution. Although so-called aseptic procedures strictly

are not such it probably is true as pointed out by Steinberg⁵ and others that peritoneal infection depends upon a quantitative as well as a qualitative factor, particularly in the presence of obstruction. One naturally hesitates to subject a patient to two operative procedures but to undertake any extensive procedure, especially if there is opportunity for contamination in a patient with obstruction will increase the risk manifold. Once the obstruction is overcome the virulence of the intestinal organism will have been lessened and the peritoneal resistance to infection enhanced. It is frequently observed that post-operative peritonitis following secondary procedures in the presence of an intestinal fistula, even with gross contamination, is the exception.

The location of the incision will naturally depend upon the site of the obstruction and the nature of the procedure that is contemplated. If the operation is in the nature of an exploratory laparotomy, probably a right paramedian incision is preferable. If the obstruction is in the left colon an incision over the transverse colon is probably a wise choice so that a transverse colostomy may be done. This is to be preferred to a cecostomy for the cecum is usually markedly thinned out and often cannot be adequately delivered for proper decompression without contamination. On opening the abdomen the finding of bloody fluid suggests the presence of a strangulating lesion which must be found. A valuable procedure is to lift the abdominal wall

with retractors which permits of a wide view of the abdominal contents, especially if spinal anesthesia is used. This may obviate the necessity for an extensive search with the hand in the abdominal cavity.

Any general presentation of the various operative procedures which may have to be employed is obviously beyond the scope of this paper. The important objective to keep in mind is to attempt to overcome the obstruction by the most conservative means at hand and to preserve gut viability. The best choice of procedure at the moment may not be clear cut and may tax the judgment, ingenuity, and skill of the most experienced surgeon. At such times self-control is an attribute that most of us may well seek.

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The Friedman Tuberculosis Remedy has been rejected after decades of careful investigation by experienced specialists in tuberculosis (*Munchen. med. Wchnschr.*, 88:512 April 25, 1941). In the "Friedman law suit" the worthlessness has been corroborated on the basis of detailed reports of qualified experts. The followers of Friedman now use the old Friedman remedy again under the new name of "utilin." The board of directors and the advisers of the German Tuberculosis Society unanimously reject the application of "utilin."—*Jour. Amer. Med. Assn.*, July 19, 1941.

In a large group of industrial workers, the proportion of the cases of tuberculosis found in a minimal stage has almost trebled since 1929. Moderately advanced cases have decreased slightly, and far advanced cases are about one-third the former proportion. This change is explained largely by the fact that in recent years fluoroscopic examinations of the chest (and roentgenograms when indicated) have been made prior to employment and as part of the annual routine examinations of all employees of the Metropolitan Life Insurance Company.—From *Bulletin of Met. Life Ins. Co.*

Things to Know About Accident and Health Insurance*

By ARTHUR W. EADE, General Agent Commercial Casualty Insurance Company

Because of the importance of health and accident insurance in a physician's insurance program the "Journal" has invited Mr. Eade, who is an expert in the field, to discuss the subject for the benefit of our members.

Physicians widely appreciate the value of accident and health insurance as a means of protecting income during periods of disability. There are several forms of accident and health insurance written by many insurers. These contracts vary in desirability according to the provisions they contain and sometimes the exact contents of the policies are not clear to the insured. In general it may be said that policies sold for low premiums do not provide the coverage that may be required and in any case, the contract should be thoroughly understood to avoid disappointment when a claim arises. The principal features, both desirable and undesirable, of common accident and health insurance policies are analyzed below.

I. The purchaser of insurance should be sure that the company carrying his insurance is properly licensed by the State of Connecticut and thereby under the supervision of the State Insurance Department. In the event of litigation, the courts of this state have no jurisdiction over an unlicensed company.

II. The insuring clause of accident insurance is the important part of any contract. There are variations in the wording of insuring clauses with respect to accident benefits and the three common ones are discussed in the order of their desirability.

(a) The most desirable insuring clause provides for *disability resulting from accidental bodily injury*. This is the broadest coverage available because under this clause the means or the act causing the injury is not a determining factor in the claim. The result alone is considered, and many injuries not covered under other insuring clauses would be included.

(b) The next most valuable insuring clause is *bodily injury effected solely through accidental means*. Under this clause, strictly

speaking, the injury must result from the performance of an unintentional act or the happening of a purely accidental event and certain types of injuries would not be covered under this clause.

(c) The least desirable insuring clause provides for *bodily injury by external and violent means*. This phraseology is the most restrictive of the three and provides for indemnity only when the accident has been caused by external and violent and accidental factors.

III. The prospective purchaser of health and accident insurance should examine carefully the provisions of the contract that define "house-confining" disabilities and "non-house-confining" disabilities. They apply with equal force to disability resulting from accident or sickness. Under the "house-confining" provision the insured must be strictly and continuously confined indoors to be eligible for full indemnity. For "non-house-confining" illness causing total disability some policies pay either a reduced indemnity or else pay the full benefits for a drastically reduced period. "Non-confining" health insurance is to be preferred because it provides the same benefits whether or not the insured is "house-confined." The loss of income resulting from total disability is independent of the confining nature of the disability. Non-confining illness should not be confused with partial disability, they are two separate things.

IV. There are three ways of limiting the period for which health and accident contracts may be continued in force.

(a) There are a few strictly "non-cancellable" contracts. Under such a policy the company guarantees to continue the contract in force upon the payment of the premium

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when due until the policyholder reaches the age of 60 or 65. The company agrees in its contract to continue the coverage regardless of changes in insurability at a premium guaranteed and known in advance. This is guaranteed renewable coverage.

(b) Another type of policy which is frequently emphasized to be "non-cancellable" is indeed not so in fact. In this type of contract the company specifically reserves the right to terminate the contract by refusing, at its option, to accept any premium. That is to say, that the contract will not be cancelled during any policy year, but the company may refuse to renew the contract for another year if the risk has proven undesirable.

(c) Most common and least desirable of all is the type of policy that contains standard provision No. 16. Such a contract may be cancelled at any time by written notice sent to the policy holder's last address.

V. Time limit between date of accident and commencement of disability is important. Policies vary to some extent with respect to this provision. The provisions of some policies require the disability to be immediate and to commence from the date of the accident. This is highly restrictive and unfavorable to the insured because an accident at the time it occurs might appear to be of a minor nature but it might create complications, causing disability at a later date. There are policies which provide that the disability must commence within a certain number of days after the accident. The limits usually range from ten to thirty days. *It is most favorable to the insured when there is no limit with respect to this provision.*

VI. Many contracts provide a reduced indemnity or an increase of premium when the insured reaches the age of 55. This should be understood at the time of the purchasing of the policy.

VII. A common subterfuge in a policy is to state the monthly indemnity instead of the weekly indemnity. When the monthly indemnity is said to be \$200.00 and such a contract is compared to another contract that

pays \$50.00 a week a little arithmetic is required. A policy that pays \$200.00 *a month* indemnity pays only \$46.67 per week.

VIII. The exclusion paragraph sets forth the limitation of coverage under the policy. Before purchasing a policy it is advisable to check the exclusions and make sure that they are not unreasonably restrictive. Restrictive exclusions are common in low premium policies, and the fewer exclusions the better the coverage. The value of a contract can be gauged quite accurately by the exclusions list. Sometimes exclusions are obscured under the headings of "Additional Provisions" and "General Provisions." All policies list some of the following typical exclusions and some policies list them all:

(a) Disability from self-inflicted injuries or attempts at suicide.

(b) Disability from an accident or sickness occurring outside the United States, Canada and Europe. A travel permit must be requested from the company when the policyholder plans a trip outside that territory.

(c) Disability resulting from military or naval service in time of war.

(d) Disability caused by an act of war.

(e) Disability resulting from *violation of law by the policyholder*. In policies that carry this provision the insured might have no claim if injured, for example, in an automobile accident while traveling at a rate of speed in excess of lawful regulations. This is very restrictive.

(f) Disability resulting from syphilis or a venereal disease. Restrictive.

(g) Insanity. Restrictive.

(h) Disability caused by tuberculosis, cancer, or heart trouble commencing during the first policy year.

Accident and health insurance should be purchased with care. The best policies contain the desirable features mentioned and can provide a valuable safeguard for income in emergency.

Editorials

Annual Dues

For several years the Piscataquis County Medical Society has been first to remit to the Maine Medical Association its annual dues 100%. 1942 has seen no exception which reflects great credit to the efficient secretary of that society and the entire membership who appreciate that promptness is a virtue. Members who are not certified by their county secretary as paid in full on or before April 1st must be dropped from membership, exception having been properly made for those serving in the armed forces of the United States, and if each member of every county society would attend to the remittance of dues promptly it would make easier the duties of county and state officials. In connection with the importance of maintaining our own memberships it might be suggested that any one knowing a physician, not a member of his or her county society, constitute themselves a committee of one to interest that physician in the importance of joining the ranks of organized medicine. It is to the interest of medicine to have every reputable physician enrolled in its ranks; it is to the interest and welfare of every physician to be enrolled.

In unity and concord there is strength and medicine needs strength as never before. Those who may entertain the fallacious idea that the enemies of organized medicine and the present system of medical care in the United States have given up their fight against it may be due for a rude awakening. Under the guise of national defense, a national emergency, a deplorable condition of this, that, or the other thing, or what ever term they see fit to employ, they will endeavor to encroach persistently and purposely on the methods and means that have enabled medicine to attain the position it occupies. That encroachment might obtain as bureaucratic control and once control has been gained or established no little difficulty will be found to release it.

These are admittedly troublesome and dangerous times. Many new and important re-

sponsibilities confront the profession with problems that are peculiarly ours, there are many new functions for it to perform as a result of the conditions obtaining in and out of the war. Through its various organizations, national, state and county, medicine must be on the alert and properly equipped in all ways to assume its position in civic affairs. With the increasing demands to be made for medical personnel by the armed forces of the United States there will result no little disruption of civil and hospital practice. That disruption must be made as minimal as possible and some of it can and will be overcome by older men assuming duties now carried on by the junior members. A great many men will be obliged to leave their practices for the duration of the war, which means no little sacrifice on their part.

Such being the facts, without question, it is more important than ever that every physician realize and recognize his responsibility in the enormous task that lies ahead. It will be through and by organized medicine that the burden will be assumed, no matter how great the demands may be for a sufficient number of physicians for the armed forces they must be supplied, yet at the same time there can be no let-up in furnishing adequate services for civilian and industrial demands that must by necessity increase in time of war. The urgency of unanimity, a chin up attitude to what ever demands are required to *win*, will mean that the job will be finished as a free and peace-loving people are determined to have it end; there is no other way.

The Ninetieth Annual Session

The ninetieth annual session of the Maine Medical Association will be held at Poland Springs on June 21st, 22nd and 23rd. It is not too early to make those days a positive engagement for every possible member of the association. While not yet ready for publication in detail it can be said that the program will be one that will appeal to all, no matter

their field of practice, and unless something unforeseen and unlooked for happens the speaker at the annual dinner will be that welcome and well-known friend, Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*. Dr. Fishbein is always an entertaining speaker but this year his message to our association will be, not only of interest, but of great importance.

Where is our society strong? Where is it weak? As each reads the program prepared it can be asked; can it be bettered and how in the meetings to come? Open suggestions on this point to the secretary will receive more than sympathetic consideration. It is not only the privilege of any member to offer suggestions but it is his duty if he sees, or

thinks he sees, how the scientific part of our meetings can be improved.

It will be noted that the clinical conferences offer a diversity of subjects, many of them of value to men in general practice, and while overlapping will result to some extent, it has been tried to reduce this to the minimum. The first session of the House of Delegates will be on Sunday the 21st. To this, and all subsequent meetings, any member is welcome; welcome as a member to enter into any of the discussions that must occur in the body that represents the county societies as a group and which is responsible for the commitments and assignments for the year to come.

Blood Plasma Banks

The first integrated system of blood plasma banks for civilian protection in New England communities will be demonstrated by a model network centered in Lewiston, Maine, the Tufts College Medical School announced after a meeting held February 7th at the Central Maine General Hospital where specialists from its faculty planned the details with representatives of fourteen hospitals involved.

England's early preparation of plasma and its storage in strategic community centers has proved one of the most vital lifesaving factors among its air raid precautions, a report of the Lewiston meeting revealed. The Lewiston network covers approximately one-third of Maine's population, including the easternmost industrial and shipbuilding centers of this country.

Communities will receive protection in proportion to the amount of blood they donate, according to the plan. Collection depots will be set up in each of the fourteen community hospitals which will forward the blood to the Central Maine General Hospital in Lewiston for extraction of the plasma. Upon its return, the plasma will be stored in the local hospital for emergency use.

The network of hospitals and regional center utilizes the identical framework over which Tufts' postgraduate division at the New England Medical Center disseminates Boston's special health and medical services to distant communities. The program was inaugurated with the aid of the Bingham Associates Fund, Bethel, Maine, nearly a decade ago. Only the technicalities of organizing the routine of blood collection and processing are therefore necessary to put the plan into effect. The next set-up contemplated involves a similar net-

work around Bangor as regional center. The same methods can be adapted for use in other areas.

It was stressed that some of the communities in the network were not vulnerable to enemy attack, but blood banks will improve the standards of community protection against any emergency and will last indefinitely. The Lewiston plan provides for retention of about ten percent of the plasma at the regional center which will be available for use in any community which suffers a major disaster. Local hospitals in turn may retain for one or two weeks several units of whole blood for use in direct transfusions and especially for immediate protection while first plasma supplies are being processed in Lewiston.

In charge of the program are Drs. Joel Hebert and Julius Gottlieb, director and pathologist respectively of the Central Maine General Hospital; and Dr. William Dameshek, assistant professor of medicine at Tufts and chief of the Blood Clinic at the New England Medical Center.

The hospitals in the Lewiston network include:

Central Maine General Hospital, Lewiston.

St. Mary's General Hospital, Lewiston.

Augusta General Hospital.

Bath Memorial Hospital.

Brunswick Hospital.

Camden Community Hospital.

Knox County Hospital, Rockland.

Rumford Community Hospital.

Reddington Memorial Hospital, Skowhegan.

Sisters' Hospital, Waterville.

Thayer Hospital, Waterville.

Miles Memorial Hospital, Damariscotta.

Franklin County Hospital, Farmington.

St. Andrew's Hospital, Boothbay Harbor.

Necrology

James Francis Cox, M. D., 1877-1942

James Francis Cox, M. D., for many years a prominent Bangor physician and surgeon, died January 18, 1942, following a week's illness.

Doctor Cox was born in Bangor, July 23, 1877, the son of James and Mary Geaghan Cox, both of whom died in his childhood. During his boyhood he lived in Houlton and attended the schools there. Following his graduation from Ricker Classical Institute he entered Georgetown University, Washington, where he completed the freshman year and then transferred to Bowdoin College as a member of the class of 1904. Upon his graduation from Bowdoin he entered the Maine Medical School and received his degree in 1907, and immediately began his internship at the Eastern Maine General Hospital. Upon the completion of his service he entered general practice in Bangor.

His professional skill was early recognized and he began an extensive practice which continued up to his last illness. Progressing as a staff member of the hospital he finally became one of the senior surgical staff and was held in high regard by his associates because of his unusual professional attainments, his unflinching integrity and his genial and wholesome personality.

Doctor Cox was a member of Delta Kappa Epsilon and Alpha Kappa Kappa fraternities at Bowdoin College, of the Penobscot County Medical Association of which he was a past president, the Maine Medical Association, and the American Medical Association.

In the first World War, Doctor Cox was a Lieutenant in the Medical Corps and served at Camp Oglethorpe, Chattanooga. Before entering active service he was a member of the Maine Medical

Reserve and was with the detachment which was sent to Halifax, N. S., following the harbor explosion, where he had an active part in setting up the numerous emergency hospitals and giving medical and surgical relief to victims of the catastrophe.

In early boyhood he gave athletic promise and at Georgetown and Bowdoin became widely known as one of the outstanding pitchers in collegiate baseball. He never lost his enthusiasm for athletics and was an enthusiastic follower of Bowdoin teams as well as being a devotee of baseball and football wherever played. Along with athletics, Doctor Cox was an enthusiastic fisherman and hunter, and so well did he know the Maine woods that he qualified as a registered guide.

Doctor Cox leaves his wife whom he married in 1939 and five children, Miss Joan, who was graduated from the University of Maine and now holds a secretarial position at the Eastern Corporation; Miss Barbara, who is attending the Katharine Gibbs Secretarial School in Boston; James F., Jr., a member of the legal staff of the Merchants National Bank, Boston; Andrew H., who was graduated from Harvard Law School in June and now awaits his call to service; and Evan R., a student at Maine Central Institute, Pittsfield.

Doctor Cox's first wife was the former Miss Mary Burns whom he married in 1913 and whose death occurred in 1929.

To his patients, in all walks of life, Doctor Cox was the personification of the kindly physician and counselor. His many generous deeds were known only to himself and the recipients, and his passing will be a heavy sorrow to the wide circle in which he was so esteemed.

County News and Notes

100% Paid-Up Membership for 1942

Piscataquis County Medical Society
Franklin County Medical Society

Cumberland

Portland Medical Club

The annual dinner meeting of the Portland Medical Club was held at the Lafayette Hotel, December 2, 1941, at 7.00 P. M. There were 62 members and one guest present.

Drs. K. A. Laughlin, Ralf Martin, A. C. Johnson and Hirsh Sulkowitch were admitted to membership.

The Club adopted Resolutions on the death of Dr. H. J. Patterson, an honorary member of the Club.

The annual reports of the Secretary-Treasurer were read and accepted.

The following officers were elected for 1941-1942:

President: Dr. Francis J. Welch.

Vice-President: Dr. J. C. Oram.

Secretary-Treasurer: Dr. Alice Whittier.

Board of Censors: Dr. H. A. Pingree, Chairman; Dr. E. R. Blaisdell and Dr. B. B. Foster.

Committee on Outside Relations: Dr. Donald H. Daniels, Chairman; Dr. R. S. Hawkes and Dr. J. M. Parker.

Liaison Committee: Dr. Thomas A. Foster, Chairman; Dr. E. E. O'Donnell and Dr. F. A. Ferguson.

Dr. M. C. Webber, retiring President, spoke briefly of the changes in medicine since he joined the Club thirty years ago.

Dr. F. J. Welch was the Orator and he chose for his subject, "Anecdotes." Dr. Welch entertained the members with recollections of unusual experiences in the years before, during, and after his medical school days.

Respectfully submitted,

ALICE A. S. WHITTIER,
Secretary.

The regular monthly meeting was held at the Columbia Hotel, January 6, 1942, at 8.15 P. M. There was a record attendance of 70 members and three guests.

Dr. W. A. Monkhouse was elected to membership.

Dr. George A. Tibbetts spoke on "Local Defense," explaining the set-up of a report center and the sub-divisions notified in case of an air raid.

Dr. Carl M. Robinson reported on "General Medical Defense," explaining the arrangements made for care of the wounded in case of a disaster.

Dr. Roland Moore spoke briefly concerning "County Defense."

A motion picture on "Vitamin B-Complex" was presented by representatives of E. R. Squibb and Sons.

Following the meeting light refreshments were enjoyed.

Respectfully submitted,

ALICE A. S. WHITTIER,
Secretary.

Kennebec

A meeting of the Kennebec County Medical Association was held at the Elmwood Hotel, Waterville, Maine, Thursday, February 19, 1942.

The Clinical Program at 5 P. M., which follows was presided over by L. Armand Guite, M. D., President:

1. Cholecystitis, Stomatitis, Proctitis—A. H. McQuillan, M. D.

2. Extensive Laceration of the Abdomen—N. Bisson, M. D.

3. Acute Leukemia—O. F. Pomerleau, M. D.

4. Common Duct Stone—E. H. Risley, M. D.

5. Severe Injury of Thigh with Complications—L. Armand Guite, M. D.

6. Nasopharyngeal Fibroma with Pneumocephalus—F. T. Hill, M. D.

Dinner at 6.30 P. M. was followed by a business meeting.

Minutes of the last meeting were read and approved.

Celia Hirschberger, M. D., of Waterville, Maine, was elected to membership.

Henry W. Abbott, M. D., of Waterville, Maine, was reinstated to membership.

The application of T. Dennie Pratt, M. D., of Waterville, Maine, was received and referred to the Council.

C. R. McLaughlin, M. D., of Gardiner, Maine, director for Kennebec County of the medical section of the Civilian Defense program, outlined the steps that have been taken thus far to meet the demands of any emergency that might occur.

The speaker of the evening was Alan R. Moritz, M. D., Professor of Legal Medicine, Harvard Medical School; Lecturer in Legal Medicine, Tufts College Medical School, and Boston University School of Medicine; Consulting Pathologist, Massachusetts State Department of Public Safety; Consulting Pathologist Massachusetts State Department of Mental Health, etc., who spoke on sudden deaths. Dr. Moritz stressed the importance of medico-legal investigation in unexpected deaths. Such deaths should be subject to medico-legal investigation, he said, in order that homicide would not go undetected, to protect innocent persons, in order that evidence pertaining to the administration of civil justice might be determined and in order that hazards to the life and well-being of the general public should not escape official notice. Illustrating his talk with slides, Dr. Moritz pointed out several circumstances where homicide was likely to be overlooked without an autopsy.

Among those attending were George L. Pratt, M. D., of Farmington, past-president of the Maine Medical Association; County Attorney William

Niehoff of Kennebec County, and Attorney Benjamin Butler of Franklin County.

There were 35 members and guests present.

Respectfully submitted,
FREDERICK R. CARTER, M. D.,
Secretary.

Thayer Hospital—Waterville, Maine

The following cases were presented at the Staff Meeting held Thursday, February 5, 1942, at 7.30 P. M.

- 1. Pyelitis—Dr. W. L. Gousse.
- 2. Influenzal Pneumonia—Dr. J. O. Piper.
- 3. Cholecystitis and Cholelithiasis—Dr. N. Bisson.
- 4. (a) Cholecystitis with Secondary Stomatitis and Proctitis; (b) Gastric Ulcer—Dr. A. H. McQuillan.
- 5. (a) Carcinoma of Recto-sigmoid (Death); (b) Carcinoma of Breast—Dr. E. H. Risley.
- 6. Traumatic Cataract—Dr. H. F. Hill.
- 7. (a) Chronic Pansinusitis; (b) Cyst of Mandible—Dr. F. T. Hill.
- 8. Critique on Chemotherapy—Opened by Drs. E. H. Risley, J. O. Piper and Arnold Moore.

Piscataquis

A meeting of the Piscataquis County Medical Association was held at Dr. R. H. Marsh's residence at Guilford, Maine, on Friday, February 20, 1942.

Guy E. Dore, M. D., reported for the committee which has been active in attempting to suggest a fee schedule for the County.

Harvey C. Bundy, M. D., reported on the Farm Security Administration Plan. It was voted that the Piscataquis County Medical Association join this plan for one year. Doctors Bundy and M. O. Brown were elected a committee to review and audit doctors' bills for Piscataquis County.

78% of our members were present.
N. H. NICKERSON, M. D.,
Secretary.

New Members
Kennebec

Henry W. Abbott, M. D., Waterville, Maine.
Celia Hirschberger, M. D., Waterville, Maine.

Coming Meetings

National Medical Societies

American Medical Association
Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.
Annual Meeting—Atlantic City, June 8-12, 1942.

State Medical Societies

Connecticut State Medical Society
Creighton Barker, M. D., 258 Church Street, New Haven, Secretary.
Annual Meeting—Middletown, June 3-4, 1942.

Maine Medical Association
Frederick R. Carter, M. D., 142 High Street, Portland, Secretary.
Annual Meeting—Poland Spring, June 21-23, 1942.

Massachusetts Medical Society
Michael A. Tighe, M. D., 8 The Fenway, Boston, Secretary.
Annual Meeting—Boston, May 26-27, 1942.

New Hampshire Medical Society
C. R. Metcalf, M. D., 5 South State Street, Concord, Secretary.
Annual Meeting—Manchester, May 12-13, 1942.

Rhode Island Medical Society
W. P. Buffum, M. D., 122 Waterman Street, Providence, Secretary.
Annual Meeting—Providence, June 3-4, 1942.

Vermont State Medical Society
Benjamin F. Cook, M. D., 154 Bellevue Avenue, Rutland, Secretary.
Annual Meeting—Bennington, October, 1942.

Convention Rates
1942 Annual Session

Poland Spring House, Poland Spring, Me.
June 21, 22, 23, 1942

The following room rates, which include all meals, will prevail:

Single rooms without bath	\$6.00 per day
Double rooms without bath, per person	\$6.00 per day
Double room and single room with connecting bath, for 3 persons, per person	\$7.00 per day
Two double rooms with connecting bath for 4 persons, per person	\$7.00 per day
Double room with bath for 2 persons, per person	\$7.00 per day
Single room with bath, per person	\$8.00 per day

The charge for non-registered guests for meals will be as follows:

Breakfast	\$1.50
Luncheon	\$2.00
Dinner	\$2.50

Golf green fees will be \$1.00 per day. The tennis courts and Beach Club will be available without charge.

The Hotel Orchestra will be available four hours each day for dancing.

Poland Spring Water, both Natural and Carbonated, will be served at all times to the guests of the hotel.

For reservations write the Poland Spring House, Poland Spring, Maine.

Make Your Reservations Early

Notices

Bureau of Health Services for Crippled Children

Clinic Schedule

- Bangor:** *Eastern Maine General Hospital*
Thursday, 1.00 P. M.-3.00 P. M.:
April 2, May 7, June 4, July 2,
August 6, September 3, October
1, November 5, December 3.
- Waterville:** *Thayer Hospital*
Thursday, 1.30 P. M.-3.00 P. M.:
April 30, June 25, August 27, Oc-
tober 29, December 31.
- Rockland:** *Knox County Hospital*
Thursday, 1.30 P. M.-3.00 P. M.:
May 21, August 20, November 19.
- Portland:** *Children's Hospital*
Monday, 9.00 A. M.-11.00 A. M.:
April 13, May 11, June 8, July
13, August 10, September 14, Oc-
tober 12, November 9, December
14.
- Fort Kent:** *Normal School*
Monday, 9.00 A. M.-11.00 A. M.,
sometimes from 1.00 P. M.-3.00
P. M. also. May 4, June 29, Au-
gust 24, October 5, December 7.
- Presque Isle:** *Northern Maine Sanatorium*
Tuesday, 9.00 A. M.-11.00 A. M., 1.00
P. M.-3.00 P. M.: May 5, June 30,
August 25, October 6, Decem-
ber 8.
- Lewiston:** *Central Maine General Hospital*
Saturday, 9.00 A. M.-11.00 A. M.:
March 28, April 25, May 23, June
27, July 25, August 29, September
26, October 24, November 21, De-
cember 19.
- Rumford:** *Rumford Community Hospital*
Wednesday, 1.30 P. M.-3.00 P. M.:
April 22, June 17, August 19, Oc-
tober 21, December 23.
- Machias:** *Normal School*
Wednesday, 1.00 P. M.-3.00 P. M.:
April 15, July 15, October 14, Jan-
uary 20.
- Portland** *Children's Hospital*
Cardiac: Tuesday, 9.00 A. M.-11.00 A. M.:
April 14, May 12, June 9, July
14, August 11, September 8, Octo-
ber 13, November 10, December 8.
- Lewiston** *St. Mary's Hospital*
Cardiac: Friday, 1.30 P. M.-3.00 P. M.: March
27, April 24, May 22, June 26,
July 24, August 28, September
25, October 23, November 20, De-
cember 18.

N. B. This clinic schedule is subject to change.
If changes are necessary adequate notice will be
given.

Please destroy previous schedule.

American College of Surgeons War Sessions

The American College of Surgeons is contem-
plating a series of one day meetings, with a pro-
gram for each meeting that will concentrate on
medicine and surgery in military service and in
civilian defense. Every state in the Union and the
District of Columbia will be included in the plan,
either singly or in combination.

Maine, New Hampshire and Vermont will meet
on Wednesday, April 1st, at the Eastland Hotel in
Portland, from 9.00 A. M. to 9.00 P. M. The meet-
ing will be open to the entire medical profession
from the states included in the area. All details
of the program will be arranged in the central
office of the College in Chicago; Irvin Abell, M. D.,
Chairman, Board of Regents, 40 East Erie Street.

The members of the Maine State Executive
Committee are:

Chairman: Eugene B. Sanger, M. D., Bangor.

Secretary: Carl M. Robinson, M. D., Portland.

Counselors: Frank H. Jackson, M. D., Houlton;
Edward H. Risley, M. D., Waterville.

American Academy of Pediatrics

The American Academy of Pediatrics, Region I,
will meet at the Bellevue Stratford Hotel in Phil-
adelphia, Pa., April 1, 2 and 3, 1942.

Registration Committee,

DR. CARL C. FISCHER,

Germantown Professional Bldg.,
Germantown, Philadelphia, Pa.

The American Congress on Obstetrics and Gynecology

The Second American Congress on Obstetrics
and Gynecology will be held in St. Louis, April 6-
10, 1942.

FRED L. ADAIR, M. D.,

General Chairman,

650 Rush Street,

Chicago, Illinois.

The American College of Physicians Announces Its Twenty-sixth Annual Session to Be Held in St. Paul, Minn., April 20-24, 1942

Dr. Roger I. Lee, of Boston, is President of the
College, and will be in charge of the program of
General Sessions and Lectures. Dr. John A. Lepak,
of St. Paul, has been appointed General Chairman,
and will be in charge of the program of Hospital
Clinics and Round Table Discussions, as well as
local arrangements, entertainment, etc. Mr. Ed-
ward R. Loveland, Executive Secretary of the Col-
lege, 4200 Pine Street, Philadelphia, will have
charge of the general management of the session
and the technical exhibits.

WANTED

Wanted — Assistant physician; single
man or woman, or married man without
children; beginning salary \$1820. to
\$2340. plus maintenance; applicant must
be U. S. citizen. Apply to Carl J. Hedin,
M. D., Superintendent, Bangor State
Hospital, Bangor, Maine.

Book Reviews

"New and Non-Official Remedies, 1941"

Containing Descriptions of the Articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1941.

Published by the American Medical Association, Chicago, 1941.

In this book are listed and described the articles that stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1941. Articles having similar composition or action are grouped together as in previous publications. Some articles have been omitted, others added, and in some revised statements on composition, standard of purity, identity, strength, action, etc., are presented on many items.

"Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1940"

With the Comments that have appeared in the "Journal."

Published by the American Medical Association, Chicago, 1941.

This small volume contains reports of the Council adopted and authorized for publication during 1940. Its publication was authorized by

the Council in order to make these reports available to physicians, chemists, pharmacologists and others who are interested in medicine.

"Synopsis of Applied Pathological Chemistry"

By: Jerome E. Andes, M. S., Ph. D., M. D., F. A. C. P., Director of Department of Health and Medical Advisor, University of Arizona, Tucson; Formerly Assistant Professor of Pathology and Clinical Pathology, West Virginia University Medical School; and A. G. Eaton, B. S., M. A., Ph. D., Assistant Professor of Physiology, Louisiana State University School of Medicine, New Orleans.

With 23 Illustrations.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$4.00.

The primary purpose in writing this latest member of the synoptic set is to provide a practical, simple, easily read text on the application of pathological chemistry to clinical medicine. The subject matter has been condensed as much as possible in order to eliminate any unnecessary reading. Unproved speculations are not indulged in. In order to help in fixing facts in the reader's mind, more important material is usually summarized in the form of tables. The information here given is hoped to be acceptable to the biochemist, physiologist, pathologist, surgeon, clinician, and to the medical student and interne.

*"This is the way
to feel refreshed"*



Pause at the familiar red cooler for ice-cold Coca-Cola. Its life, sparkle and delicious taste will give you the real meaning of refreshment.



The Journal of the Maine Medical Association

Volume Thirty-three

Portland, Maine, April, 1942

No. 4

*Medical and Psychiatric Problems of Selective Service**

By LIEUT.-COL. DONALD E. CURRIER, Medical Corps, U. S. A.; Chief, Medical Division,
Selective Service, Massachusetts

During World War I some 5,000,000 men were physically examined by local draft board physicians and by the army doctors at the reception centers. Judged by any previous standard, the examination they received was relatively good, but we learned from costly experience that it was not good enough. I don't have the exact figures but up to the time this is being written only about 1,200,000 men have been similarly examined. However, it is correct to say that never in the nation's history have so many men been so carefully examined as during the past eleven months. Twenty-five years ago 29.1% of the draftees were rejected for physical reasons—whereas now something over 59% or almost exactly twice as many are being turned down. The rocking chair brigade fastened onto these facts—which, of course, were well-publicized in the press—and began wringing their hands and moaning about the deplorable deterioration of the nation's health in the past twenty-five years. Of course this is rubbish! There has not been any deterioration at all. Quite the contrary. The real answer is that our standards were too low then, and there has been a fairly audible whisper here and there suggesting that they are too high now. Per-

sonally, I don't think so. I don't think so for a number of reasons.

First of all, as this opus profundum is being written, the United States is officially at peace, whereas in 1917 we were at war. In those hectic days we were trying to raise a very large army as quickly as possible. Today, as you know, the size of the army is limited and it is comparatively small. Not only that, but it is an entirely different kind of an army. Quality of man power has become vastly important. Everything is mechanized today and vehicles have to be kept in motion if they are to be of any use. Instruments of precision such as range finders, directional sound detectors, etc., were known to us after a fashion during the war, but they were not very complicated and, if I may be permitted to use the vernacular, they were very scarce. Now everything has some kind of a gadget attached to it that would take a Swiss watchmaker to assemble and a really intelligent soldier to use. Furthermore, every arm of the service must be coördinated 100% during an attack—all their movements must be synchronized to a split second, if the thing is to go. This presupposes a complicated and efficient system of communications. Until

* Read before New England Psychiatric Society, October 17, 1941.

Mr. Hitler's misadventure in Russia, we all know that he didn't use more than 10% of his available armed forces to subdue Poland, France, Belgium, Holland, and all the rest—and he probably used less. But what *was* in action was the last word in efficiency—and, you may be sure, intelligent from the meanest private to the brass hats who ran the show. Nothing ever brought home to military men so dramatically the fact that there is less and less room in the modern army for the man with a strong back and a weak mind as did the blitzkrieg through the low countries and France. The moron was fine and dandy when there was a mule to bury or a latrine to dig. But, of course, there are no longer any mules to bury and it is my honest conviction that an intelligent soldier will dig a better latrine than a nit-wit. Incidentally, I can tell you from personal experience that the best latrine ever dug is a pathetic compromise—especially in the rain.

Nor has it taken the War Department all these years to discover that the army was no place for the C. P. I.'s, the neurotics, the introverts, and all the rest of the inhabitants of that pallid outer fringe of mental health. They began to look at this unhappy clan with a fishy and a jaundiced eye when they realized that fully fifty millions of the taxpayers' money was being spent every year for compensation, hospitalization and so on, for the mental cases alone resulting from the World War. That means more than a billion dollars up to January 1, 1941. Long, long ago, when the world was young, a billion dollars was a lot of money. You can even find some incorrigible conservatives here and there who still think so. Therefore, they are very anxious to screen out the mentally unfit. Certainly those of us who had any first-hand experience with the problem during the war feel the same way about it.

I happen to have been an artillery officer assigned to the 76th Division. Our regiment received some draftees from the outlying districts of Maine and New Hampshire—the cities and larger towns all had their quotas already in the National Guard. I remember one tiny New Hampshire village had a draft quota of one man. Whether what happened was just the normal functioning of the fish

bowl, or whether the town fathers found it easy to defer some of the more useful citizens, I wouldn't know. But, in any event, we drew the town fool. It took us four long months to wind up the red tape necessary to get him a discharge for disability. If he gave the town fathers half as much trouble as he gave us, I can understand only too well how Luther happened to pass his physical examination. Although this man was the only complete economic and military zero we had, I recall a good many who were pretty small fractions and were nothing but a colossal nuisance from their induction to their discharge. One of these mental giants insisted on covering the front of his uniform with celluloid buttons advertising politicians, Moxie, cigarettes, and God knows what. Confinement to quarters, confiscation of the buttons—nothing did any good. When I left the outfit seven months later he was still appearing in ranks dressed in celluloid buttons. You can't make me believe that *someone* didn't know that he was absolutely useless as army material.

Now for just a moment let us return to this question of whether or not the national health has been going in reverse since the World War. Being physicians, of course you know that it couldn't have—you know that the various departments of public health and our epidemiologists have done a wonderful job in reducing the incidence of various contagious diseases. You know that our serologists have made possible astounding strides in the field of immunization. And now our chemo-therapists have come along with that incredible drug sulfanilimide and all its derivatives. This momentous discovery dwarfs Banting's insulin and Ehrlich's magic bullet. One disease after another has succumbed entirely or, in large part, to the power of this amazing drug — scarlet fever, rheumatic fever, peritonitis, pneumonia, meningitis, erysipelas, gas gangrene and gonorrhea, to mention just a few—and the end is not yet. You know what bacterial endocarditis, resulting from scarlet, K. L. and rheumatic fever, means in terms of our national health as well as I do, but I wonder how many of you could give me even an approximate idea of what has been happening in this field.

The figures that I am about to give you are Massachusetts figures, but they don't differ essentially from those of Maine or New Hampshire or almost anywhere in the United States.

When I graduated from college in 1914, I thought we had just about reached the millennium in Massachusetts as far as sanitation and preventive medicine went, and yet in that enlightened year 652 people died of diphtheria, a rate of 17.9 per hundred thousand of population. In 1940 there were eight deaths from diphtheria, or a rate of .2%.

Inoculation against typhoid isn't nearly as common and universal a practice as the inoculation with toxin-antitoxin for diphtheria but if you stop and think about it you will realize that a lot of people get it sooner or later. During the World War upwards of 5,000,000 men in the army were protected against typhoid and, while that immunity is supposed to last only from three to four years, we know perfectly well that it is at least relatively effective throughout life. Since 1922 in Massachusetts we have had an average of 10,000 men in the National Guard with an average annual turnover of about 3,000. At that rate, up to January 1, 1941, there have been 67,000 men protected against typhoid in this group alone. To this number must be added whatever of our citizens are in the regular army, navy, marine corps, and coast guard. Roughly 2,000 young women enter nurses' training schools every year in Massachusetts and, while inoculation is not compulsory, it is invariably done. Also there are many other persons who for one reason or another take the typhoid shots. At any rate, due to all these things plus our greatly improved sanitation and methods of preparation and handling of food, this is what has happened. During the Spanish War the death rate from typhoid was 25 per hundred thousand. If the same percentage had existed in 1940, 1,075 people would have died in Massachusetts. Actually eight died.

In 1895 scarlet fever with its terrible sequeli of mastoids, Bright's disease and damaged hearts was a monstrous destroyer of children. If the death rate of 40 per hundred thousand which prevailed then should be translated into terms of our present popu-

lation of 4,300,000, it would mean that 1600 people would die of scarlet fever every year—and most of those would be children. As a matter of fact, in 1940 there was just under one death per hundred thousand of population. I don't know what you think about that, but I think that it is a thrilling and soul-stirring achievement. Also, I think the foregoing is a very effective answer to the rocking chair brigade. Every time you immunize one individual against typhoid you reduce by that much the danger of an epidemic, and every time you prevent diphtheria or scarlet in a child you reduce by that much the chance of valvular heart disease.

On the other side of the ledger, however, are some things which make us realize that all is not sweetness and light. There is too much "hidden hunger" and poverty in the richest nation on earth and there are too many deficiency diseases in this land of plenty. As you well know, there are too many rejections among our selectees, even taking into consideration the high standards under which we are operating. I have already said that 59% of our young men are not acceptable to Uncle Sam. At the local board physical examinations 52% are rejected and 48% passed. Of those passed an additional 15% are rejected at the induction centers—and 15% of 48% is 7.2% of the whole number. It does not follow that all these rejectees are physical wrecks because they are not. A great many of them are carrying on successfully in civil life and doubtless will continue to do so. It must be remembered that these men are not being picked for one year of training, or even thirty months; they are being chosen with the understanding that, after their period of training is over, they will become part of a reserve military pool and available for the armed forces for the ensuing ten years. But any way you look at it, it is a depressing reflection that so many of our young men in the prime of life cannot pass what, after all, is a perfectly reasonable physical examination.

It is true that the British wouldn't have any army at all if they attempted to enforce dental requirements the equivalent of ours—

but we only require twelve teeth, three pairs of opposing incisors and three pairs of opposing masticating teeth. Not only that, but they don't all have to be natural teeth—dummies are acceptable and so is bridgework if the character of the workmanship warrants it. Reasonably good occlusion, however, is insisted upon. Army rations have to be not only bitten but chewed. Sometimes that takes quite a lot of doing. It would seem, wouldn't it, that almost any man between twenty-one and thirty-five could scare up twelve teeth that met. But, as Al Smith would say, "Let's examine the record." Almost 17% of our registrants are thrown down by our local board physicians for insufficient teeth and 10% of those who pass their initial examination are rejected by the induction center physicians for dental reasons. That is one reason that I say there is too much poverty in these United States. Personally I don't think these standards are too high and, yet, if we should suddenly have to raise a large army in a hurry, this is the first one which would be lowered.

To continue briefly with the causes and percentages of rejections, 9.7% failed because of defective vision or eye pathology, 6.5% had a musculo-skeletal defect of one kind or another, 4% had diseases of the heart or blood vessels, 5.04% were either mentally defective, epileptics or psychoneurotics. These figures were taken from a recent breakdown of 2,030 examinations at local boards in Massachusetts. They were spot-checked from fifty-four cities and towns scattered throughout the state so that they would give us a good cross-section. Of that number 1,117, or 55%, were rejected and 913, or 45%, were accepted. Some of the registrants were turned down for more than one reason so that we had a total of 1,314 causes. These figures, it seems to me, carry their own implication. I might say in passing that I made no attempt to break down the psychoneurotic cases because the diagnoses were made by general practitioners and I was a little dubious about their accuracy. Needless to say, there are rejections for all sorts of other things—hernias, varicose veins, diabetes, tuberculosis, obesity, malnutrition, etc., almost ad infinitum, but the percentages

in these other groups is small and I won't bore you with the figures.

Now, let us see what happens to the men who pass this first examination when they get to the induction center. Here again there are rejections for everything under the sun almost, but I will mention only the more common causes. You may be surprised to know that neuropsychiatric rejections led the field with 17.8% and that figure does not include the mental defectives who account for an additional 6.6%. In the order of importance come eyes with 12.2%, cardiovascular diseases with 9.5%, lungs 9.0%, teeth 8.5%, ears 6.8%, and so on down the list. Epilepsy accounted for 2.7%.

For statistical purposes and for clarity all psychoneurotic cases are divided into eight groups, as follows:

- I. Mental Defect and Deficiency.
- II. Psychopathic Personality.
- III. Major Abnormalities of Mood.
- IV. Psychoneurotic Disorders.
- V. Schizoid and Related Personalities.
- VI. Chronic Inebriety, specifying alcoholism or drug addiction under Remarks.
- VII. Syphilis of the Central Nervous System.
- VIII. Other Organic Diseases of Brain, Spinal Cord, or Peripheral Nerves, specifying the full neurological diagnosis under Remarks.

When a local board physician is in doubt as to the mental status of a registrant he may, and obviously should, refer the case to the Medical Advisory Board. There are fifteen such boards in Massachusetts and every board has at least one top-flight psychiatrist on its roster whose duty it is to examine the man to determine the nature and extent of his mental illness and occasionally to detect malingering. One is tempted to go off on a tangent and discuss malingering as there are some interesting yarns to tell about this resourceful and wily brotherhood. What amazes us all is that there has been so little of it. The medical officers' bible is a war department pamphlet entitled, "Mobilization Regulations I-9." There are set forth our

physical standards, and, there, also, is a short treatise on how to spot the malingerer, calling attention to some of the more subtle and clever methods employed. In fact, some perfectly swell suggestions are offered to the potential faker if the publication should fall into his hands. The distribution of the pamphlet is quite general and it is about as hard to obtain as, let us say, the Old Farmers' Almanac.

But to get back to our medical advisory board psychiatric goings-on. As I write this I have before me reports of 87 referred cases examined by such men as Dr. Macfie Campbell of Boston, Dr. Bonner of Danvers, Dr. Ball of Northampton State, and so on. Of the 87 cases 16.01% were in group I, 14.9% in group II, 2.3% in group III, 49.4% in group IV, 9.1% in group V, 3.5% in group VI, none in group VII because they are too young for that, and 11% in group VIII. These figures are interesting simply because they give the relative frequency of the various types of mental disease.

In attempting to discuss the neuropsychiatric problem as it affects the army in particular and the national defense in general, I am fully aware of my shortcomings. I am no psychiatrist, and I make no pretention to any real knowledge of the subject, although I think it is fair to say that I have been exposed to more psychiatry than the average general practitioner. I *can* speak to you, though, as one who has served in the armed forces not only as a medical officer but as a line officer as well. I have come to grips many times with the problem of the soldier who is mentally unfit and who never should have been put in a uniform. I have been interested in seeing the mesh of the neuropsychiatric screen made fine and I want to see it kept that way. I have been not a little impressed with what our psychiatrists have been able to accomplish with the limited time available for each examination. And I assure you that I do *not* share the conviction held by some army officers I know that the average psychiatrist is a good deal of a nut himself.

There are several angles to all this but the one which immediately concerns us is the army angle. The question is how can the

misfits be kept out when the average time for the neuropsychiatric examination cannot much exceed six minutes. Can we get more psychiatrists, can the examination be made more efficient, can some program be put in motion for instructing the local board examiners in psychiatry so that fewer such registrants will reach the induction centers—in short, is there any substitute for time? Of course the obviously mentally sick don't take very long, but they are not the group that gives the army the real headache. Their chances of getting by the present set-up are very slim. Even if such an individual should and subsequently develops an attack of manic-depressive insanity, he can be handled with promptness and dispatch. No, it's the borderline group that gives us the blues. Let me give you an example of the type I mean and the situation he creates. Registrant John Doe of East Pitch, Massachusetts, goes all over town telling the world that nobody is going to stick him in the army at thirty bucks per—not on your life—that's all right for the suckers—but for him? The hell with that—and all and sundry are urged to watch him beat this racket. His swagger grows with every passing day. Well, the reaction of the local board is a perfectly natural one, they want more than anything in the world to see this gent in the army and, if possible, on permanent K. P. The local doc who has known John for a nasty brat almost since the day he brought him into the world feels the same way about it. Needless to say, John is physically O. K. and after he has turned heaven and earth to have his 1-A classification set aside without success, he is whisked off to the induction center—and very likely a letter may have gone along on the Q. T. setting forth some of the facts. Enter the psychiatrist. Letter or no letter, if he has time enough he gets John's number all right and can imagine quite well what has gone on. By the bye—here is a nice decision for him to make—shall he pass John for the wholesome effect it will have on the other boys of draft age or shall he reject him because he knows he will be an all-American pest in the army? But suppose the psychiatrist has been rushed all day and is a little behind his confreres, a bottleneck has developed in his de-

partment and he is trying to catch up. John gets by. Practically everybody in East Pitch is tickled pink but our hero's commanding officer won't be. Selectee Doe will find his level in the army and he will join a small coterie that exists in almost every military organization, and they always run true to form. They hate the army and everything connected with it; they resent and resist military discipline; they get ugly when they are assigned to guard duty or K. P.; it isn't their turn and they are forever being picked on; they are insubordinate in small things and sometimes in large ones; they get drunk whenever the opportunity presents itself and are habitually late to formations; they eat everything in sight but complain eternally about the food; they are sullen and anti-everything and raise the devil generally with the morale of the outfit. In short, they are the absolute bane of the organization commander's existence. I know that if every captain commanding an infantry company or an artillery battery could speak to you, all would say the same thing and all would ask you to do what you could to keep such people at home. You all know that, if someone had had time enough to dig into the history of these men, there would have been abundant evidence to show that they suffered from the same malady in civilian life.

Where, then, shall we draw the line? One can't reject every registrant just because he doesn't want to go into the army, even if he wants pretty badly to stay at home. There are too many men like that. If a natural reluctance to be separated from family and friends and to lose one's freedom temporarily were adequate cause for rejection, we might just as well abolish selective service and go back to our old policy of volunteer recruiting. We have tried that in almost every war the United States has been involved in and it has always been a dismal failure.

May I digress for a few moments and tell you a few facts about our experience with volunteer recruiting in the past—facts I am sure you never read in your history books at school. I don't need to remind you that the Revolutionary War dragged on its weary course for seven long years. Yet any student of military tactics could tell you that, if

Washington had had 10,000 seasoned troops at his disposal, the war would have been over in six months. He never had anything like that number, although during the seven years he had a total of nearly 400,000 men. Even though the British never had more than 42,000 men in this country at any one time, General Washington was always pathetically outnumbered. In 1777 he had one thousand regulars and two thousand militia, whose enlistment was due to expire within a month, to face twenty thousand British in and around New York. Every time his volunteers had had enough training to be of some value to him, their enlistments would expire and he would have to start all over again. Imagine trying to fight a war under such a handicap. That he was able to do it successfully is a great tribute to his military genius.

It was the same old story for the same old reason during the War of 1812. We employed, all told, 527,000 troops between 1812 and 1815, whereas the maximum number of men the British ever had in the field at any one time was 16,500.

General Santa Anna might easily have beaten Winfield Scott if his army had been anything but a rabble because when Scott was about in the middle of his advance to Mexico City he had to stop and send home four thousand men, or more than 40% of his entire command, because their enlistments had run out.

Nobody ever told me when I was a boy in school that Union troops in the Manassas area actually marched away to the sound of Confederate cannon because of the termination of their enlistments. I'll bet those babies were right on hand for the plaudits of the multitude to say nothing of a free meal and a noggin of grog on every Decoration Day, just the same. It is sad but true that you cannot raise an army of any considerable size by voluntary enlistment. No nation ever has. Conscription was the reason for the success of Caesar's legions and compulsory military service is the only answer and always will be. Did you know that Moses and Aaron classified the Jews and placed 603,000 of them in Class I? If you don't believe me, look it up when you get home in the first chapter of Numbers.

I seem to have gotten pretty far away from the subject I came here to discuss so I will get back to it if I can find my way. When I got off the track I was talking about the really difficult neuropsychiatric cases to decide on. The physical examination at the induction centers is patterned after the production line and each man has to produce about so much to avoid a bottleneck. Very shortly only regular army, reserve and federalized national guard medical officers can be used for these examinations, and the number of psychiatrists is definitely limited. How, then, can we perform the terribly important function of keeping out of the army the men who won't make good soldiers? The only help I see for the induction board psychiatrists is to give the local board physicians enough instruction so that they can screen out a lot of these borderline cases at the source. You are the only ones who can do that. The question is, *will* you? I think I know the answer to that.

I have been on this podium altogether too long now, but I have one more favor to ask of you before I stop. As you, of course, realize, many of our rejectees could be complete-

ly rehabilitated—for instance by having the necessary dental work done or a hernia repaired. Many more could be markedly improved if proper remedial measures were taken. All over the country there will be a comprehensive plan for making rehabilitation facilities available to these men in the near future. In some states plans are already well under way. While no one can say this as a fact, it looks very much as though some federal funds would be forthcoming to defray actual costs—but, as usual, the doctors are expected to contribute their services. No one can force a rejected registrant to take advantage of these opportunities—it must be entirely voluntary. If we are careful to make clear that this is an attempt to make healthier and happier citizens and not a trick to get more men in the army, I think a great many men will avail themselves of these facilities. We are all a little shocked to learn how many are in need of psychotherapy, but we feel that a substantial number would gladly accept treatment for their difficulty if they could get it. You are the only men who can give it. The question is, *will* you? I think I know the answer to that, too.

Gall bladder disease, although infrequent in the young, should be included in a differential diagnosis of abdominal lesions in children. It is probable that many cases go undiscovered, a clinical diagnosis not having been made because it is such a rare condition in childhood.

Cholecystographic studies should be made more frequently in children, and surgical exploration of the biliary tract is not done often enough during the removal of a so-called interval appendix.

A case of non-calculous gangrenous cholecystitis in a four-year-old child is reported by L. Byron Ashley, M. D., and A. S. Narotzky, M. D., of Detroit in *The Journal of the Michigan State Medical Society* for April, 1941. The patient complained of abdominal pain and vomiting for three days before admission to the hospital. General tenderness of the entire abdomen, especially on the right side, was elicited, but no mass was

palpated. Temperature 100.4. Pulse 144. Respirations 20. Leukocytes 7400, with 62 polys. Urinalysis negative. Diagnosis of acute surgical abdomen was made, and the finding of an acute appendix was expected. At operation, a tense gangrenous gall bladder was found, with free peritoneal fluid and exudate around the gall bladder. No stones were found. The gall bladder was drained, a section removed for biopsy, and the contents cultured. The pathologist confirmed the diagnosis, and the cultures produced no growth.

The patient made an uneventful recovery and has since remained in good health.

Where the standard of living is low, tuberculosis is high. In no way is poverty more tragic in its relation to disease than in tuberculosis.—CHARLES R. REYNOLDS, M. D., *Bull. Nat'l Tuber. Assn.*, Aug., 1940.

*An Attempt to Ascertain the Clinical Value of the Rate of Blood Sedimentation; Based on a Study of Five Hundred Unselected Patients**

By E. R. BLAISDELL, M. D., F. A. C. P., and K. E. SMITH, M. D., Portland, Maine

The recognition of the increased sedimentation rate in illness is not new; indeed, Hippocrates noted in doing venesections that separation of the red and light portions of the blood was more rapid in many illnesses than in healthy patients. However, it was not until 1917 that the first scientific investigation of this phenomenon was made. Fahraeus¹ at this time observed an increased sedimentation of the red cells in pregnancy, but recognized that this was not specific for any particular disorder. During the past twenty-four years more than two thousand articles and books dealing with both the scientific and clinical aspects have been published on the subject.

The largest clinical series of which we are familiar was reported by Cutler² who, in 1932, had studied five thousand patients during a six-year period. In his summary he states, "As a diagnostic aid, an increased rate indicates disease; as a prognostic index, and similarly as a guide in treatment, the rate of sedimentation has been shown to be a more accurate and reliable reflection of the real condition of the patient than our usually accepted procedure."

Obviously, with so many investigators in this field, several different methods of performing this simple procedure have been devised. It is our belief that all of the popular methods are sufficiently accurate to be practical. We do feel, however, that a tube at least 200 mm. in length is important, as shorter tubes tend to favor packing which will slow up the rate especially in those bloods where the rate of sedimentation is rapid. Some writers have proposed studying the rate over a twenty-four hour period; this seems tedious, and for practical purposes a rate estimated at the end of sixty minutes appears sufficient.

Clinically, it may be remembered that acceleration of the blood sedimentation rate is associated with those processes which are accompanied by inflammation or necrosis, or by an increase in the fibrogen content of the blood plasma. However, a superficial inflammatory process with good drainage need cause no acceleration at all, while the same degree of inflammation in an area without drainage will accelerate the rate. Infectious diseases without marked local inflammation rarely show any great increase in the rate of sedimentation.

We have studied 500 unselected patients in this series, 150 of whom were office patients seen by one of us (E. R. B.) and the remainder were service patients on the wards of the Maine General Hospital. The regular Westergren tube was used with a 3.8% solution of sodium citrate as an anticoagulant. 0.2 cc. of the anticoagulant was combined with each 0.8 cc. of blood, and readings were taken at the end of sixty minutes.

Of the 150 office patients, 51 had rates above normal. The highest rates occurred in pneumokoniosis (1 patient), in carcinoma (2 patients), in acute rheumatoid arthritis (16 patients), in pleurisy with effusion (1 patient), in active pulmonary tuberculosis (4 patients) and in acute chorea (1 patient). This increased rate in acute chorea is probably an exception rather than the rule, and most authorities do not list chorea as a cause of increased blood sedimentation. This was an interesting patient, however; the rate of blood sedimentation remained high for 6 weeks and fell slowly as the symptoms improved. In the remainder of the 150 patients studied, it will be noted that the exudative processes were absent, or only slight, and likewise there was little change in the rate.

* Read at the Annual Meeting, Maine Medical Association, York Harbor, Maine, June 24, 1941.

BLOOD SEDIMENTATION RATES IN 150
UNSELECTED OFFICE PATIENTS

Disease	No. of Patients	Average Sed. Rate
Neurasthenia	18	normal
Chronic Constipation	2	normal
Gastric Neurosis	1	normal
Irritable Colon	15	normal
Appendicitis (subacute)	2	normal
Duodenal Ulcer (uncomplicated)	2	normal
Cholecystitis (subacute)	5	2 X normal
Cholecystitis (chronic)	2	normal
Cholelithiasis (chronic)	4	normal
Tapeworm	1	1½ X normal
Allergic Migraine	1	normal
Allergic Enterocolitis	1	normal
Contact Dermatitis	1	normal
Eczema	2	normal
Asthma	1	normal
Hysteria	2	normal
No Complaint (routine exam.)	1	normal
Myositis	1	normal
Thyrotoxicosis	1	normal
Avitaminosis	2	normal
Diabetes (uncomplicated)	1	normal
Hypochromic Anemia	1	normal
Chronic Prostatitis	1	normal
Influenza (mild)	1	1¼ X normal
Pleurisy with Effusion (probably T. B.)	1	5 X normal
Pulmonary T. B. (active)	4	¾ X normal
Pneumokoniosis (T. B. not found)	1	¾ X normal
Pulmonary T. B. (healed)	1	normal
Bronchitis (acute)	4	2 X normal
Bronchopneumonia	1	3 X normal
Bronchogenic Carcinoma	2	¾ X normal
Metastatic Carcinoma of Spine	1	5 X normal
Acute Tracheitis (mild)	2	normal
Acute Tonsillitis (convalescing)	1	normal
Labyrinthitis	1	normal
Acute Chorea	1	4½ X normal
Salpingitis (subacute)	1	1¼ X normal
Acute Neuroretinitis	1	normal
Iritis	1	1¼ X normal
Keratitis (physical exam. neg.)	1	normal
Osteoarthritis with Acute Retinitis	1	2 X normal
Rheumatoid Arthritis (subacute)	6	2 X normal
Rheumatoid Arthritis (active)	16	¾ X normal
Rheumatoid Arthritis (inactive)	3	normal
Pseudo-arthritis (allergic)	1	normal
Pseudo-arthritis (menopausal)	6	normal
Osteoarthritis	6	normal
Arthritis (unclassified)	1	3 X normal
Acute Bursitis	1	2 X normal
Chronic Bursitis	1	normal
Angioneurotic Edema	2	normal
Sciatica	1	normal
Chronic Rheumatic Heart Disease	1	normal
Angina Pectoris	1	normal
Carotid Sinus Irritability	1	normal
Cerebral Hemorrhage	1	2 X normal
Berger's Disease (active)	1	2½ X normal

Vascular Occlusion in Leg (embolic)	1	normal
Phlebitis of Leg (subacute)	1	normal
Chronic Arteriosclerotic Vascular Occlusion of Leg	1	normal
Chronic Phlebitis of Leg	1	normal
Essential Hypertension	1	normal
Chronic Nephritis	1	normal
Acute Pyelitis	1	¾ X normal

THE BLOOD SEDIMENTATION RATE IN 350
UNSELECTED HOSPITAL PATIENTS

TABLE 1
ACUTE, SUBACUTE, AND CHRONIC PYROGENIC INFECTIONS
a. 48 patients with acute infections had an average rate of 3 X normal.
b. 10 patients with subacute infections had an average rate of 2 X normal.
c. 4 patients with chronic infections had an average rate of 1¼ X normal.

TABLE 2
TUMORS
Benign:
a. 16 patients before operation had an average rate of normal.
b. 21 patients after operation had an average rate of 2 X normal.
Malignant:
a. 18 patients before operation had an average rate of 2 X normal.
b. 3 patients after operation had an average rate of 2 X normal.
c. 8 patients before radium had an average rate of 1½ X normal.
d. 2 patients after radium had an average rate of 1½ X normal.
e. 9 patients who were classified as inoperable had an average rate of 3 X normal.

TABLE 3
PREGNANCY
a. 6 patients in the first three months of pregnancy had an average rate of normal.
b. 6 patients in the last six months of pregnancy had an average rate of 3 X normal.
c. 22 patients in the first week postpartum had an average rate of 3 X normal.
d. 11 patients in the second week postpartum had an average rate of 2 X normal.

TABLE 4.
FRACTURES

Patient	Age	Sex	Location	Complications or Operations	Rate	Temp.
1.	65	M	Tibia		normal	99
2.	60	F	Neck of Femur	rales base right lung	5 X normal	99.5
3.	46	M	Base of Skull	bloody spinal fluid	2 X normal	100
4.	74	F	Neck of Femur	10 days after nailing	2½ X normal	98
5.	52	F	Ankle	compound	1½ X normal	98
6.	31	M	Ribs	pneumothorax and hydrothorax	3 X normal	99.6
7.	37	M	Pelvis		4 X normal	99
8.	68	M	Humerus		1½ X normal	98
9.	28	M	Malar Bones	comminuted with blood in antrum	1½ X normal	99.4
10.	57	F	Pelvis		3 X normal	98
11.	59	M	Wrist		normal	99
12.	27	M	Wrist		normal	98
13.	55	F	Humerus		2 X normal	98
14.	56	M	Fingers	lacerations on hand	2 X normal	98
15.	53	F	Leg		normal	98
16.	50	M	Ankle	compound	normal	98
17.	28	F	Both Ankles		normal	98
18.	33	F	Leg		4 X normal	98
19.	44	F	Ankle		2 X normal	98
20.	52	M	Tibia and Fibula	comminuted	5 X normal	101
21.	50	M	Ankle		3 X normal	99
22.	76	M	Ankle	pneumonia (resolving)	5 X normal	99
23.	53	F	Thigh	non-union in old fracture	normal	98
24.	64	F	Femur	decubitus ulcer	5 X normal	100
25.	53	F	Leg and Arm		2 X normal	98.6
26.	30	M	Spine	old fracture	normal	98
27.	79	F	Hip		2 X normal	98
28.	60	M	Spine	compression fracture	1½ X normal	98
29.	24	M	Ankle	4 days after wiring	3 X normal	98.6

Summary: 29 patients had an average rate of 2 X normal.

TABLE 5
MAJOR SURGICAL LESIONS
(Classified as "clean cases" at time of operations)

Patient	Age	Sex	Type	Remarks	Rate	Temp.
1.	57		Procidencia (complete)	1 day following operation	2 X normal	99.5
2.	20	M	Inguinal Hernia	before operation	normal	98
3.	69	M	Inguinal Hernia (stran- gulated)	1 day after operation	normal	99
4.	27	M	Inguinal Hernia	3 days after operation	normal	98
5.	42	M	Inguinal Hernia	1 day after operation	normal	98
6.	19	M	Inguinal Hernia	before operation (mild bronchitis)	2 X normal	98
7.	18	F	Bilateral Hallux Valgus	10 days after operation	normal	98
8.	51	F	Cholecystectomy for gall stones	8 days after operation before operation	2 X normal	98
9.	28	M	Inguinal Hernia		normal	98
10.	83	M	Inguinal Hernia (stran- gulated)	6 days after operation (stitch abscess)	4 X normal	100
11.	27	M	Inguinal Hernia	before operation	normal	98
12.	19	M	Inguinal Hernia	before operation	normal	98
13.	40	F	Umbilical Hernia	before operation	normal	98
14.	68	F	Cataract	10 days after operation	2 X normal	98
15.	28	M	Inguinal Hernia	8 days after operation	2 X normal	98
16.	53	F	Perineal Repair	10 days after operation	3 X normal	99

Summary: 6 patients before operation had an average rate of normal.
10 patients after operation had an average rate of 2 X normal.

TABLE 6
NERVOUS AND MENTAL DISEASES

Case	Age	Sex	Diagnosis	Rate	Temp.
1.	27	F	Multiple Sclerosis	normal	98
2.	30	F	Acute Psychosis	normal	98
3.	26	M	Gastric Neurosis	normal	98.6
4.	30	M	Menier's Disease	normal	98
5.	58	M	Dementia Precox	normal	98
6.	43	F	Neurasthenia	normal	98
7.	36	F	Gastric Neurosis	normal	98.6
8.	21	M	Neurasthenia	normal	98
9.	34	M	Gastric Neurosis	normal	98
10.	66	M	Multiple Sclerosis	normal	98
11.	46	M	Multiple Sclerosis	normal	98.6
12.	51	F	Psychoneurosis	normal	98
13.	54	M	Psychoneurosis	normal	100
14.	46	M	Neurasthenia	normal	98
15.	34	M	Neurasthenia	normal	98
16.	16	M	Fredericks Ataxia	normal	98
17.	33	F	Menopausal Neurosis	normal	99
18.	75	M	Atonic Colon	normal	98
19.	38	F	Psychoneurosis	normal	98

Summary: All 19 patients studied had individually a normal rate.

TABLE 7
PNEUMONIA

Case	Age	Sex	Type	Remarks	Rate	Temp.
1.	70	F	Bronchopneumonia		5 X normal	101
2.	72	M	Bronchopneumonia		5 X normal	100
3.	72	M	Bronchopneumonia		3 X normal	104
4.	36	M	Lobar Pneumonia		4 X normal	105
5.	69	F	Bronchopneumonia	1 day before discharge	2 X normal	98
6.	28	M	Bronchopneumonia	1 day before discharge	1½ X normal	98
7.	47	F	Bronchopneumonia		5 X normal	101
8.	23	M	Lobar Pneumonia	aborted	1 X normal	98
9.	61	F	Bronchopneumonia	convalescing	3 X normal	98

Summary: 9 patients had an average rate of 3 X normal.

TABLE 8
SPRAINS AND SKIN LACERATIONS

Case	Age	Sex	Type	Complications	Rate	Temp.
1.	24	F	Sacro-iliac Sprain		normal	98
2.	62	M	Lacerations of Hand		normal	98
3.	45	M	Lacerations of Hand		normal	98.6
4.	41	M	Sacro-iliac Sprain		normal	98
5.	49	M	Laceration of Scalp		normal	98
6.	26	M	Laceration of Ankle	Slight Cellulitis	normal	99
7.	19	M	Laceration of Hand		normal	98
8.	46	F	Laceration of Hand		normal	98
9.	28	F	Laceration of Hand		normal	98
10.	22	M	Laceration of Hand		normal	98
11.	69	M	Laceration of Head		normal	98
12.	45	M	Laceration of Head		normal	98
13.	19	M	Sacro-iliac Sprain		normal	98
14.	27	M	Laceration of Chest		normal	98
15.	19	F	Laceration of Finger		normal	98

Summary: 15 patients had an individual rate of normal.

TABLE 9
KIDNEY, BLADDER, AND URETERAL STONES

Case	Age	Sex	Location	Complications	Rate	Temp.
1.	16	F	Kidney		normal	98
2.	56	M	Bladder		3 X normal	98
3.	36	F	Kidney		normal	98
4.	69	M	Kidney (bilateral)		4 X normal	98
5.	78	M	Bladder		normal	98
6.	59	M	Kidney		2 X normal	98
7.	28	M	Ureter		normal	98
8.	72	M	Bladder		normal	98
9.	62	M	Bladder		normal	98

Summary: 9 patients had an average rate of 1½ X normal.
The temperature was normal in all patients, although 1 patient had a rate of 3 X normal, while another had a rate of 4 X normal.

TABLE 10
HEART DISEASE
(With Failure)

Case	Age	Sex	Complications	Rate	Temp.
1.	60	M	Pulmonary Infarction	5 X normal	100
2.	58	M	Pulmonary Infarction	2 X normal	98
3.	48	M		1½ X normal	98
4.	61	M		normal	102
5.	72	M	Pulmonary Infarction	3 X normal	102
6.	77	F		normal	98
7.	60	F		3 X normal	98
8.	65	M		normal	99
9.	64	M		2½ X normal	98
10.	57	M	Lues	2½ X normal	98
11.	67	M		2½ X normal	98
12.	46	M		normal	98
13.	61	M		normal	98
14.	83	M		normal	98
15.	24	F	Chronic Adhesive Pericarditis	normal	98
16.	45	M		normal	100
17.	71	F		normal	98
18.	58	M		normal	98

(Without Failure)

1.	70	F		normal	98
2.	60	M		normal	98
3.	59	M	Lues	3 X normal	98.6
4.	72	M	Lues	normal	98
5.	61	F	(21 days after infarction)	normal	98
6.	61	M	(2 days after infarction)	normal	98
7.	60	M	(8 days after infarction)	normal	98
8.	46	M	(2 months after infarction)	normal	98

Summary: 18 patients with congestive failure had an average rate of 1½ X normal.
8 patients without congestive failure had an average rate of normal.

TABLE 11
TUBERCULOSIS

Case	Age	Sex	Location	Complications	Rate	Temp.
1.	42	M	Hip	Abscess around joint	5 X normal	100
2.	57	F	Lung		4 X normal	100
3.	49	M	Bladder (healed)		normal	98
4.	32	F	Femur		5 X normal	99
5.	50	M	Femur		3 X normal	98
6.	75	M	Femur		2 X normal	98
7.	33	M	Femur		normal	98

Summary: 7 patients had an average rate of 3 X normal.
In only 2 patients did the temperature reach 100.

TABLE 12
ANEMIAS AND LEUKEMIAS

Case	Age	Sex	Type	Hgb.	Blood Count		Rate	Temp.
					R. B. C.	W. B. C.		
1.	65	F	P. A. (after 10 days of therapy)	39% 54%	1,700,000 3,000,000	3,000 6,000	4 X normal 2 X normal	98 98
2.	70	M	Secondary (cause)	40%	2,700,000	6,000	3 X normal	98
3.	52	M	Secondary (papilloma of bladder)	23%	1,280,000	9,000	normal	99
4.	66	M	Leukemia (myelogenous) plus Polycythemia Vera	113%	5,900,000	125,000	normal	99
5.	56	M	P. A.	38%	1,800,000	4,000	normal	98
6.	62	M	Chronic Lymphatic Leukemia (acute exacerbation)			35,000	3 X normal	102
Summary: 2 patients with pernicious anemia were studied. 1 had before treatment a rate of 4 X normal with a decrease of rate to 2 X normal after treatment. Another had a normal rate before treatment. 1 patient with secondary anemia (cause unknown) had a rate of 3 X normal, while a second patient with anemia, secondary to papilloma of bladder, had a normal rate. 1 patient with myelogenous leukemia plus polycythemia vera had a normal rate. 1 patient with chronic lymphatic leukemia with acute exacerbation had a rate of 3 X normal.								

TABLE 13
ARTHRITIS

Case	Age	Sex	Type	Rate	Temp.
1.	18	M	Rheumatoid Arthritis (active)	3 X normal	98
2.	41	M	Rheumatoid Arthritis (active)	4 X normal	98
3.	85	M	Hypertrophic Arthritis	1½ X normal	98
4.	60	M	Rheumatoid Arthritis (active)	3 X normal	98
5.	60	M	Rheumatoid Arthritis (inactive)	normal	98
6.	40	M	Rheumatoid Arthritis (inactive)	normal	98
7.	58	F	Hypertrophic Arthritis	normal	98
Summary: 3 patients with active rheumatoid arthritis had an average rate of 3 X normal. 2 patients with inactive rheumatoid arthritis had an average rate of normal. 2 patients with hypertrophic arthritis had an average rate of normal.					

TABLE 14
BRAIN (TRAUMATIC, VASCULAR, AND ABSCESS)

Case	Age	Sex	Type	Rate	Temp.
1.	49	M	Concussion	normal	98
2.	40	M	Fracture of Skull (bloody spinal fluid)	2 X normal	100
3.	44	M	Hemorrhage	normal	98
4.	72	M	Concussion	normal	98
5.	70	M	Thrombosis (arterial)	normal	98
6.	59	M	Thrombosis (arterial)	normal	98
7.	80	M	Thrombosis (arterial)	normal	98
8.	28	M	Abscess	3 X normal	100
9.	60	F	Thrombosis (arterial)	normal	98
10.	72	M	Concussion	normal	98
11.	80	M	Thrombosis (arterial)	2 X normal	99
Summary: 4 patients with traumatic injuries had an average rate of 1¼ normal. 6 patients with vascular accidents had an average rate of normal. 1 patient with abscess had a rate of 3 X normal.					

TABLE 15
CONGENITAL ANOMALIES

Case	Age	Sex	Type	Rate	Temp.
1.	18	F	Club Foot (before operation)	normal	98
2.	25	F	Dermoid Cyst, right ovary (before operation)	normal	98
3.	39	M	Scoliosis	normal	98
4.	38	M	Scoliosis	normal	98
5.	29	M	Cervicle Rib	normal	98
6.	10	M	Club Foot	normal	98

Summary: 6 patients with congenital anomalies had an individual rate of normal.

Time and space prevents us from going into detail with the clinical course of many individual patients. However, we would like to discuss briefly two patients; one, a woman, aged 32 when seen in October, 1936, with a history of occasional joint soreness for five years, presented a clear cut picture of active rheumatoid arthritis with swollen knees and ankles. In spite of these findings, the sedimentation rate was only 11¼ X normal and at no time during her illness was it higher than 21¼ X normal. Treatment, including vaccines, serums, a well-balanced diet and physiotherapy, was without benefit and at the time of her death from pneumonia two years later she was approaching the state of a hopeless cripple. The second patient, also a woman, aged 59, when first seen in January, 1941, had pain and soreness in both hips and shoulders with limitation of motion. The blood sedimentation rate was 6 X normal, although the temperature was 98.6. As both symptoms and sedimentation rate remained unchanged for two months, she consented to tonsillectomy following which her condition began to improve. The sedimentation rate gradually fell with the gradual improvement in symptoms and today is only 2 X normal. We do not present these briefs to confuse, perhaps further, the issue as to the clinical merits of the blood sedimentation rate, but only to show that originally high or relatively low rates may have no bearing on the ultimate outcome of the disease.

In presenting our findings in this series of 500 patients, no attempt has been made to discuss the scientific side of the subject as we feel this has been thoroughly covered in many of the hundreds of articles published. Our study has been wholly a clinical one.

After a brief glance at the findings in this small group of patients, a few points seem outstanding. First, generally speaking, in many instances, the number of patients studied here is actually too small from which to draw definite conclusions. For example, out of 26 patients with heart disease, we happened to have had only 4 with coronary thrombosis on the wards at the time and 2 of these had had their infarction well past the time when the rate would have been increased. The rates of all 4 were normal, which our previous experience has shown is directly oposite to what we usually find for the first 2 weeks following an acute coronary thrombosis.

Second, the sedimentation rate can be expected to be increased whenever there is an increase in the fibrogen content of the blood plasma, or an inflammatory or necrotic exudate being absorbed, and for these reasons it is unreliable as a specific diagnostic test.

Third, there is no correlation between the body temperature and the blood sedimentation rate. Although the rate is frequently elevated when the temperature is increased, a high rate is not an uncommon finding in the presence of a normal temperature.

SUMMARY AND REMARKS

We have attempted to evaluate the rate of the red blood cell sedimentation as a clinical procedure. 150 patients were office patients and the remaining 350 were on the wards of the Maine General Hospital. In neither instance were the patients selected, and no separation into the different groups was started until the study was completed. Rates from 1½ to 2 X normal were considered slightly

Continued on page 85

Cancer Control in Maine, 1942

By MORTIMER WARREN, M. D., Portland⁽¹⁾
and

HERBERT R. KOBES, M. D., Augusta⁽²⁾

During the Legislative session of 1941 "An Act to Promote Cancer Control" was passed. Its wording is "The department (Health and Welfare) is authorized to make investigations concerning cancer, the prevention and treatment thereof and the mortality therefrom; and to take such action as it may deem will assist in bringing about a reduction in the mortality thereto." All who read this will immediately realize that this is a very broad and liberal law. There are two aspects to the law; first, that of investigation or research, and second that of activities to reduce mortality in cancer—these activities to be pointed out by the results of the investigations.

As soon as it was determined that the program was to be carried out in the Division of Medical Services in the Bureau of Health it was felt that a coöperative effort involving the Cancer Committee of the Maine Medical Association, the Women's Field Army, the various tumor clinics, and the Bureau of Health would guarantee the best type of program that could be given to the citizens of Maine. You will remember that the Cancer Exhibit at the June, 1941, State Medical Meeting was sponsored by all these groups. As the program develops other groups in the medical, dental, nursing, and social service professions will undoubtedly take part in both planning and activities.

At a joint meeting of the Cancer Committee and the staff of the Bureau of Health suggestions were formulated for the activities of the various groups participating in the program.

The Women's Field Army will continue to carry out a program of lay education using the medical advice of the other coöperating groups. A speaker's bureau of physicians should be built up and eventually should include physicians from most of our com-

munities. Through funds raised by the Women's Field Army x-ray and radium therapy becomes available to patients who otherwise could not be treated.

From the Annual Report of the State Commander of the Women's Field Army of Maine (1941) we learn about the contribution of the Field Army toward x-ray and radium treatment of cancer patients who would not be able to care for this therapy from their own funds.

Year	Number of Patients	Paid by Field Army
1937	123	\$ 4,228.20
1938	276	6,629.21
1939	256	3,236.00
1940	287	14,060.96
1941	287	12,250.00
<hr/>		<hr/>
Total	1,229	\$40,404.37

These payments did not, of course, represent the total cost of care. For those patients who had to be hospitalized to receive radiation we learn that the State Hospital Aid Division made considerable payment toward the cost of care and in addition other funds given by private agencies or individuals helped obtain hospitalization. Many cases which have received surgical treatment had none of their care paid for by the Field Army but did have partial payment made through State or other funds.

The present six tumor clinics are giving a splendid service to the cancer patients of Maine.

There is need for uniformity in recording the cases and with this in mind the responsibility for devising and supplying uniform record forms was taken on by the Bureau of Health. Such forms are now available for the use of the tumor clinics and for all hospitals and private physicians.

(1) Chairman, Cancer Committee of the Maine Medical Association.
(2) Director, Division of Medical Services, State Bureau of Health, Department of Health and Welfare.

From the limited State appropriation some payment is being made to aid defray in part the cost of the necessary diagnostic procedures carried out in the tumor clinics themselves. X-rays are frequently needed, especially to determine the presence of metastases. All tumor clinics should have a biopsy or pathological specimen of every case before a positive diagnosis of cancer is made. This procedure is absolutely necessary in the determination of the so-called "five year cures."

The present tumor clinics at Portland, Lewiston, Waterville and Bangor are so located geographically that only a relatively small part of Maine is covered adequately. In the future other clinics should be established to make available to patients the services of the cancer program. These additional clinics in most instances will be for diagnosis, consultation and follow-up rather than treatment. Since 1935 the vital statistics reports⁽¹⁾ indicate that about 1,300 cancer deaths have been reported annually. In 1940 the death rate for cancer for the United States was 120.3 per 100,000 while that for Maine was 155.0 per 100,000.⁽²⁾ Regardless of the reasons for this higher rate in Maine we know we have a definite problem to face and since these deaths occur in all sections of the State the present cancer control facilities, as represented by the tumor clinics, should be extended to make them available to all sections of Maine.

Physicians are more and more appreciating the value of group consultation for diagnosis and treatment of cancer. The interests of both the physician and patient are protected by such group advice. Various cancer statistics derived from death reports, and the impact of the war will all influence the establishing of new clinic centers.

The Cancer Committee recommended making Cancer a reportable disease.

The Bureau of Health is taking under consideration making available to tumor clinics medical social service and clerical aid on a part-time basis where these are not now available. The present tumor clinics almost all feel acutely the need of some medical social

service. One of the most important phases of cancer control is the follow-up service which should be available to all cases. The Bureau of Health through its Division of Public Health Nursing can render valuable service to tumor clinics and physicians by assisting in the follow-up of patients in their homes. The necessity for return visits as advised, the explanation to the patient and family of the physician's instructions and methods of treatment are all part of follow-up. Another important activity is the directing of arrangements for obtaining recommended care when limited family resources seem to prevent the physician's advice from being carried out. The Public Health Nurse frequently knows available local resources of which the family or physician may not be aware.

Professional educational plans will need to be made and at the present time it is felt these should have the tumor clinics as focal points. Coöperation with the Committee on Post-Graduate Education of the Maine Medical Association will be sought in fitting this activity into those already underway in other fields.

A heavy responsibility in cancer control is that which will come out of the development of statistical research regarding cancer in Maine. We need to know where our cancer cases are and the varying rates of death due to cancer in different counties and the reasons for them. We have no compiled information relative to the incidence of different types of cancer in different areas of the State. Essential to an adequate program are the answers to all these problems and many others. These answers will not be arrived at in a day and many individuals and groups will be asked to aid in obtaining them. The responsibility for gathering the material will be given to the Bureau of Health.

This is the first of a series of reports regarding the Cancer Control Program which will appear from time to time in THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION.

- (1) 48th Annual Report upon the Births, Marriages, Divorces and Deaths in the State of Maine, p. 96.
- (2) Bureau of the Census, Vital Statistics, Special Reports, Vol. 15, No. 7, p. 76.

Plan for Blood and Plasma Banks, State of Maine

JULIUS GOTTLIEB, M. D., F. A. C. P.*, and GILBERT CLAPPERTON, M. D.

PART I

The value of plasma banks has been recently stressed by all agencies devoted to Medical Defense activities. The general principle that each locality must assume the responsibilities inherent in its Civilian Defense efforts, particularly holds with respect to the creation of Plasma Banks for its use in the event of catastrophes arising as the result of enemy attack. No segment of the population can nor should be expected to provide plasma for Civilian Defense for groups of individuals elsewhere. There is only one source of human blood plasma for any community, and that source obviously is the constituents of that community. The only exception to this general proposition is the provision of plasma to the armed forces and to such communities that have not adequately prepared

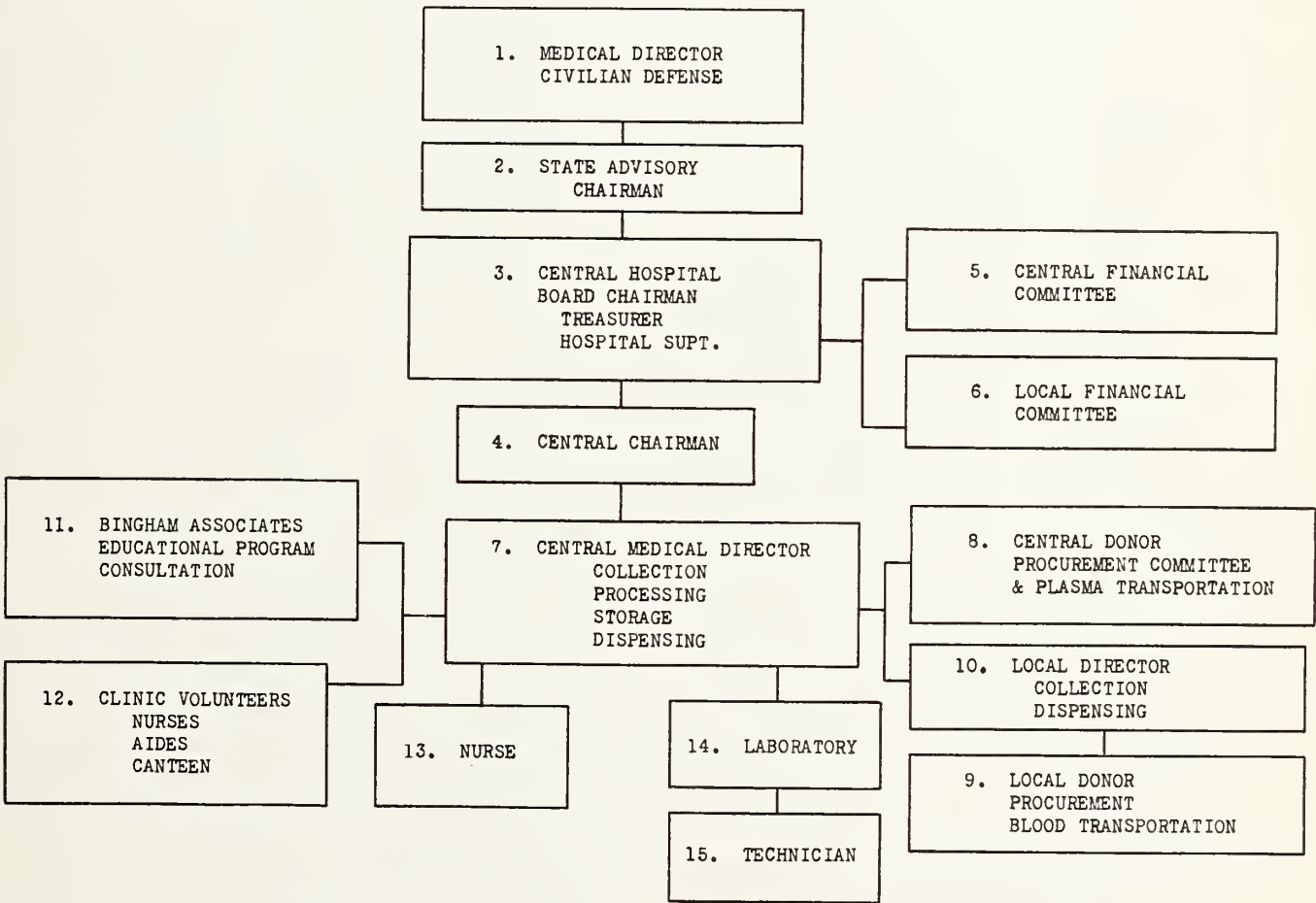
for a catastrophe when stricken. At the present writing, there appears no exception for any community to divorce itself from the responsibility of providing plasma for its potential use.

The following plan is recommended to the State of Maine Medical Director for Civilian Defense to be modified as may be needed in each and any of its communities, or groups of communities participating in the creation of a reserve of blood plasma.

ORGANIZATION :

A—The general structure of the organization for Blood and Plasma Banks throughout the State follow the pattern as outlined in the diagrammatic schema, coördinated under the office of the Medical Director for Civilian Defense. (1)

Plan for Blood and Plasma Banks



* From the Central Maine Blood and Plasma Bank Fund.

B—That the committee suggested by your office comprised of Pathologists shall act in an advisory capacity, and shall be in direct communication with the Medical Director and respective chairmen of the various hospitals. (3)

C—That a central director be appointed who shall have complete supervision of the Blood Bank at each of the centers throughout the State, and that not more than four and not less than three such central banks be established. The central director shall be responsible for the collections, storage, processing and dispensing of the Blood and Plasma Banks. (7)

D—It is further recommended that representatives (3) of the Board of Directors, comprised of the chairman of the Board of Trustees, the Superintendent and Treasurer be responsible for all finances and personnel pertaining to each of the central banks to whom the central director be directly responsible. It is essential that all regulations pertaining to the conduct of each of the central banks be approved by the central hospital board. (3)

E—It is further recommended that at each center a finance committee (5) be appointed whose functions shall be the obtaining of funds as may be necessary at each center.

F—It is recommended that a central hospital donor procurement committee (8) be appointed whose function shall be obtaining of blood donors and the transportation of Plasma for the various local centers. It is suggested that the Women's Hospital Association, or its equivalent be assigned these functions.

G—It is recommended that each local unit appoint a local Medical Director, (10) a financial committee (6) and a donor procurement committee, (9) whose respective functions be analogous to similar committees of each of the central banks.

H—It is recommended that each center take advantage of the Bingham Associates Education and Consultation services, (11) including refresher course for physicians,

technicians and nurses engaged in the central Blood and Plasma Banks.

J—It is also suggested that a volunteer organization be established at each station, (12) both central and local, comprising a canteen, nursing and aide service, whose functions shall be as may be directed by each of the Medical Directors at the time of blood procurement clinics.

K—Each center shall engage a full time nurse (13) and part time technician (15) responsible to the Central Director for all duties pertaining to the central bank.

FORMS:

It is recommended that uniform forms be prepared by each of the centers to be distributed to their various associated units, particularly in reference to registration blanks, data sheets pertaining to physical examinations, record blanks to be retained at each center and certification cards of donors; as well as a uniform system of bookkeeping and tagging of blood specimens.

TECHNIQUE:

Insofar as possible, it is recommended that technical procedures pertaining to blood procurement, processing, storage and dispensing be uniform in each of the centers, as well as the technique pertaining to typing, serological and bacteriological procedures. Recognition, however, of accepted methods of each of the centers pertaining to technique is essential.

DISPENSING OF PLASMA:

The dispensation of Plasma must be guided by the general principle that the efforts of the Plasma Bank are directed towards the creation of the supply of Plasma that may be needed in the event of a catastrophe at any of the centers or its subdivisions. Requirements for Blood Plasma arising out of the usual emergencies must therefore be met in the usual manner now obtaining at the various hospitals throughout the State; or as may be created as a function distinct from this emergency defense effort. Under unusual circumstances, however, available Plasma may be obtained for other purposes if and

only when such Plasma can be replaced by an equivalent of blood or monetary compensation, which in either event shall accrue to the Blood and Plasma Banks. In the event of a monetary exchange, a charge equivalent to prevailing market price shall be made. In the event of an exchange of blood equivalents, it is recommended that 250 cc. of blood be delivered for each 100 cc. of Blood Plasma. This is to be exclusive of any charge that any institution or individual may make for services pertaining to a transfusion in question.

OBJECTIVE:

It is recommended that each center aim to accumulate one thousand 500 cc. flasks in frozen state, approximately half of which is to be stored at the central station and the

remainder at the various local stations and strategic sites. Each locality shall be entitled to any available supply of Plasma in the event of catastrophe.

FINANCES:

Insofar as possible, each center and its subdivisions shall solicit contributions for the support of these banks to be augmented by funds that may become available through the Medical Director of Civilian Defense.

NOTE: Part II will deal with a more detailed description of the organization of the Central Maine Blood and Plasma Bank Fund and the technique employed in the collection, processing, storage and dispensing of Blood Plasma, adapted to the general plan outlined above.

The 15th Early Diagnosis Campaign for the Prevention of Tuberculosis

It is an important fact to remember that Tuberculosis can exist without signs or symptoms, and to discover the presence of Tuberculosis infection before any physical signs or illness appears, we have the tuberculin test, a harmless skin test. If this test is positive it means there are tuberculosis germs present in the body, but it does not tell whether or not such germs are active or doing damage. If the skin test is positive an x-ray picture of the lungs should be taken and if the x-ray shows tuberculous shadows the films should be read by a physician with special training and experience to determine whether there should be a lung examination made. Several sputum tests should always follow an x-ray showing significant changes in the lungs, but tubercle bacilli are only found if the disease has become an "open case."

It is only through the use of modern case finding methods leading to an early diagnosis and isolation of all open cases and continuation of education of the public that we shall conquer Tuberculosis. Great progress has been made in the prevention and treatment of Tuberculosis and the death rate has been cut down more than three-fourths of the rate found in 1900, but there are still 100 out of every two hundred persons infected with the germs of Tuberculosis.

Tuberculosis still kills one out of every twenty persons and no other disease kills so many people between the ages of fifteen and forty-five. Wars have always brought an increase in Tuberculosis and the age-group between twenty and forty-five is the most essential one in time of war. It is not only the men in the armed service, but it is found that behind every man in uniform it takes eighteen men and women in overalls on farms and in factories to supply the need of one soldier, so we might use a war cry of "No Victory Without Health."

Prevention of disease is a large part of Civilian Defense. The war effort needs all our productive strength and as most of the victims of tuberculosis are workers and housewives, both are needed for Home Defense. Tuberculosis must not be permitted to weaken our Home Defense. The Maine Public Health Association with its nineteen affiliated services is conducting the 15th Early Diagnosis Campaign this year from April 1 to April 30 and Mrs. Maude Clark Gay, of Waldoboro is State Chairman. The slogan for the 15th Early Diagnosis Campaign is

TUBERCULOSIS
FIGHT IT
TREAT IT
CONQUER IT

Editorial

National Cancer Control Month

By special Act of Congress April has been designated as National Cancer Control Month. Again the Women's Field Army will conduct its annual campaign for material and deserved support by way of contributions that its educational efforts may continue successfully, as they must. It is extremely probable that the Post Office Department will authorize the issue of a special cancer stamp, which daily reminder—it is hoped—will augment in no small way the battle that is being fought with success against malignant disease. Since 1937 the work of the Women's Field Army in Maine has shown increasingly tangible results that educational efforts are well worth the time and money expended. It is the good fortune of the physicians and people of Maine to have even more than this valuable service, for a very material amount of financial assistance has been afforded properly certified and recommended patients to obtain x-ray and radium treatments since many patients seen in and referred to the tumor clinics are unable to bear this burden in whole or part. This assistance has been made possible by the Army Scannell fund together with a special allotment by the State and the number of patients who require financial help is yearly increasing.

To progress means moving forward, advancing and increasing in proficiency, and the records of Maine and certain other states shows facts that are extremely gratifying and hopeful, not only in the technical methods dealing with certain types of malignancy, but a seeming appreciation by the public as demonstrated by the increasing number of patients applying for diagnostic consultation.

While the financial demands required to combat the challenge to our very existence have soared into astronomical figures the war against disease must continue; it would be the height of folly to minimize our efforts in any way.

The campaign of the Field Army will not have the dramatic appeal and popular publicity enjoyed by certain efforts connected with National defense, and public meetings on the subject of cancer can hardly be expected to compete in interest with those of a different nature. However, the tragedy of delay in the diagnosis and treatment of malignancy cannot be too emphatically or often stressed and it is extremely important that any given patient with suspected or questionable malignant disease obtain the service which will remove the problem from one of doubt to certainty if humanly possible.

Research, more and better facilities for the care of the indigent sick, the development of more special clinics and hospitals, are all important aspects of a cancer control campaign but not a whit more than preventing thousands from becoming hopelessly, incurably ill. The family physician is the one who usually sees the average patient when the problem is diagnostic. As a rule the patients and those near and dear to them seek an intelligent answer to their fears, justified or not, and to expose any patient to the dangers inherent in delay, uncertainty or unwarranted false security is not an application of the Golden Rule. The demands on hospitals, clinicians and clinics are increasing. That increase must be met and again the JOURNAL speaks for and in behalf of the campaign for this most meritorious cause.

Complacency would be stupid while tuberculosis is still causing more deaths in this country than any other communicable disease except pneumonia, and while there are less than a hundred thousand sanatorium

beds to care for half a million people with recognizable clinical infection. — GEDDES SMITH, *"Plague on Us,"* pub. by Commonwealth Fund, 1941.

The Ninetieth Annual Session

The annual session of The Maine Medical Association will be held at the Poland Spring House, Poland, Sunday, Monday, and Tuesday, June 21, 22, and 23. The accommodations, the general atmosphere with its panoramic view, and being so readily accessible, The Poland Spring House is no doubt the most outstanding place in Maine for conventions. Our last meeting held there received the greatest turnout in the history of the Association. This year, in particular, should be well attended, as each member should avail himself with all possible information, to better cope with what may be the most trying conditions that the medical profession has ever had to deal.

Much of the program for the three days is already completed in detail. The entertainment for Sunday evening is to be somewhat

different from that of the past and will be of interest to the ladies as well. The chairmen of the various conferences have been most prompt in working up their subjects. Each conference has been seriously considered and should be of much interest and value. The next issue of the JOURNAL will contain much in detail concerning the conferences and the afternoon program. The speaker for the banquet will put a lot of punch into the last day, and it is expected that many will come solely to hear Dr. Fishbein.

Bring the ladies and your golf clubs. No one knows what next year will have in store, so let's make this a grand get-together.

C. C. WEYMOUTH, M. D.,
Chairman Scientific Committee.

Continued from page 78

elevated, and more than 3 X normal markedly elevated.

The rate was found to be definitely elevated in acute pyogenic infections, in pneumonia, in tuberculosis, in malignant tumors, in fractures, in the last six months of pregnancy and during postpartum, in active rheumatoid arthritis, and following abdominal operations. The rate was consistently normal in nervous and mental diseases, in benign tumors, in sprains, skin lacerations, and in diabetes mellitus.

It has been said that the use of the blood sedimentation rate tells the experienced person much, but that it may lead the inexperienced astray. With the exception of pregnancy, the organically healthy individual should not have an elevated rate; but an ele-

vated rate is not specific for any one disease. The sedimentation rate is many times useful as a follow up to check the progress of the disease or the recovery of the patient. However, this, too, is far from infallible, as a temporary — perhaps unrecognized — complication may itself elevate the rate.

Therefore, we feel that the blood sedimentation rate is a practical, simple laboratory procedure which should be of considerable use in the hands of those who understand its limitations.

1. Fahræus, R.: The Suspension-Stability of the Blood. *Acta Med. Scandinav.* 55: 1-228, 1921. *Ibid. Physiol.* 9: 241-274, 1929.
2. Cutler, J. W.: The Practical Application of the Blood Sedimentation Test in General Medicine. *Am. J. M. Soc.* 183: 643, (May) 1932.

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County News and Notes

100% Paid-Up Membership for 1942

Piscataquis County Medical Society
Franklin County Medical Society
Washington County Medical Society
Lincoln-Sagadahoc Medical Society
Hancock County Medical Society
Oxford County Medical Society

Aroostook

A clinic and luncheon meeting of the Aroostook County Medical Society was held Friday, October 24, 1941, at Presque Isle, Maine.

The following cases were presented at the Clinic:

- (1) Asthmatic bronchitis and infantile eczema.
- (2) The backward child.
- (3) Stomatitis in infants.
- (4) Stigmata of prolonged malnutrition.

At the noon luncheon at the Northeastland Hotel, Herbert E. Locke, Attorney, of Augusta, spoke on malpractice suits and means of avoiding them.

Francis McDonald, M. D., of the Floating Hospital, Boston, spoke on the *Appraisal of the Child*.

P. L. B. Ebbett, M. D., President of the Maine Medical Association and Norman H. Nickerson, M. D., Councilor of the Sixth District, were present.

GERALD H. DONAHUE, M. D.,
Secretary.

Cumberland

The 163rd meeting of the Cumberland County Medical Society was held Friday, February 27, 1942, at the Eastland Hotel, Portland, Maine, at 6.30 P. M. The President, Roland B. Moore, M. D., presided.

The speaker of the evening was Chester Keefer, M. D., of the Massachusetts Memorial Hospital, Boston, whose subject was *The Treatment of Bacterial Meningitis*. His paper was discussed by Drs. Henry P. Johnson, Mortimer Warren, Joseph E. Porter, Alice A. S. Whittier, and Hirsh Sulkowitch.

Eugene P. McManamy, M. D., was admitted to membership by transfer from the Olmsted-Houston-Fillmore-Dodge County Society, of Minnesota.

The application of Lawrence W. Conneen, M. D., was received and referred to the Council.

The meeting was preceded by a Clinic at the Maine General Hospital at 5.00 P. M.

EUGENE E. O'DONNELL, M. D.,
Secretary.

Kennebec

A meeting of the Kennebec County Medical Association was held at the Gardiner General Hospital, Gardiner, Maine, Thursday, March 19, 1942.

Clinical program at 5 P. M., which was presided over by L. Armand Guite, M. D., President:

1. *Possible Case of Multiple Sclerosis*—Henry Almond, M. D.
2. *Retained Placenta*—I. E. McLaughlin, M. D.
3. *Two Cases of Angina Pectoris*—Fred Strout, M. D.
4. *A Case of Pneumonia*—C. R. McLaughlin, M. D.
5. *An Unusual Case of Diabetes in a Child*—A. B. Libby, M. D.
6. *Breast Carcinoma of Twelve Years' Duration*—F. B. Bull, M. D.
7. *Aneurysm of the Femoral Artery*—S. O. Cla-son, M. D.
8. *Lymphosarcoma of the Tonsil*—A. C. Hurd, M. D.

Dinner at 6.30 P. M., which was followed by a business meeting. Minutes of the last meeting were read and approved.

T. Dennie Pratt, M. D., of Waterville, Maine, was elected to membership.

The speaker of the evening was Hollis L. Albright, M. D., Visiting Surgeon at the Massachusetts General Hospital, The Baptist and the Deaconess Hospitals, and Instructor of Surgery at Boston University. His subject was *Management of Hyperthyroidism*. This paper was amplified by lantern slides, and was very interesting and instructive.

There were 35 members and guests present.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,
Secretary.

Knox

A meeting of the Knox County Medical Society was held at Rockland, Maine, Tuesday, January 13, 1942.

The meeting was called to order by James Carswell, M. D., President, who appealed to the doctors for volunteer teachers for the Red Cross. The following doctors volunteered their services: Gilmore W. Soule, Neil A. Fogg, and Wesley Wasgatt, of Rockland; Saul R. Polisner and James Carswell of Camden; Frederick Dennison of Thomaston; and Paul A. Jones of Union.

S. H. Proger, M. D., of the Pratt Diagnostic Hospital, Boston, who was the guest speaker, gave some case histories illustrating troublesome medical conditions and conducted an open discussion of each case. Many interesting points were brought up, and much interest shown regarding newer ideas.

A. J. FULLER, M. D.,
Secretary.

A meeting of the Knox County Medical Society was held at the Copper Kettle, Rockland, Maine, Tuesday, February 10, 1942. The President, James Carswell, M. D., presided.

This meeting was called to review matters not already clarified and to check on the defense program.

C. Harold Jameson, M. D., spoke first on the Plasma Bank being set up in Lewiston, and working through the Bingham Associate Hospitals.

Neil A. Fogg, M. D., spoke on Plasma.

Walter D. Hall, M. D., gave an outline of the

defense locations and the capacity for casualties, and the arrangements for sifting out cases to avoid overloading hospitals.

Frederick Dennison, M. D., of Thomaston, and Saul R. Polisner, M. D., of Camden, told about the set-up in their towns.

Howard L. Appollonio, M. D., on leave from Military Service, spoke on First Aid.

A. J. FULLER, M. D.,
Secretary.

Penobscot

The regular monthly meeting of the Penobscot County Medical Association was held on Tuesday, February 17, 1942, at Bangor, Maine.

At the business meeting, two new members were accepted as follows: Jay K. Oslar, M. D., Bangor, by transfer from the Kings County Society, New York. Doctor Oslar is associated with Manning C. Moulton, M. D., in the practice of Ophthalmology. Benjamin L. Shapero, M. D., Bangor, who will specialize in Internal Medicine.

The speaker of the evening was Chester M. Jones, M. D., Clinical Professor of Medicine, Harvard Medical School. His subject was "Thoracic and Upper Abdominal Pain; Its Significance and Differential Diagnosis."

There were 44 present.

FORREST B. AMES, M. D.,
Secretary.

New Members

Aroostook

H. F. Kelloch, M. D., Ft. Fairfield, Maine.

Cumberland

Eugene P. McManamy, M. D., 29 Deering Street, Portland, Maine.

Kennebec

T. Dennie Pratt, M. D., Waterville, Maine.

Lincoln-Sagadahoc

H. C. Barrows, M. D., Boothbay Harbor, Maine.

C. E. Bousfield, M. D., Woolwich, Maine.

H. E. Fernald, M. D., East Boothbay, Maine.

Rufus E. Stetson, M. D., Damariscotta, Maine.

Penobscot

Jay K. Oslar, M. D., 150 State Street, Bangor, Maine (by transfer from the Kings County Society, New York).

Benjamin L. Shapero, M. D., 73 Broadway, Bangor, Maine.

Deaths

Androscoggin

Joseph Oswald Marien, M. D., 47, at Lewiston, Maine, March 6, 1942.

Cumberland

William Delue Anderson, M. D., 61, at South Portland, Maine, March 1, 1942.

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Coming Meetings

National Medical Societies

American Medical Association

Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

Annual Meeting—Atlantic City, June 8-12, 1942.

State Medical Societies

Connecticut State Medical Society

Creighton Barker, M. D., 258 Church Street, New Haven, Secretary.

Annual Meeting—Middletown, June 3-4, 1942.

Maine Medical Association

Frederick R. Carter, M. D., 142 High Street, Portland, Secretary.

Annual Meeting—Poland Spring, June 21-23, 1942.

Massachusetts Medical Society

Michael A. Tighe, M. D., 8 The Fenway, Boston, Secretary.

Annual Meeting—Boston, May 26-27, 1942.

New Hampshire Medical Society

C. R. Metcalf, M. D., 5 South State Street, Concord, Secretary.

Annual Meeting—Manchester, May 12-13, 1942.

Rhode Island Medical Society

W. P. Buffum, M. D., 122 Waterman Street, Providence, Secretary.

Annual Meeting—Providence, June 3-4, 1942.

Vermont State Medical Society

Benjamin F. Cook, M. D., 154 Bellevue Avenue, Rutland, Secretary.

Annual Meeting—Bennington, October, 1942.

Convention Rates 1942 Annual Session

Poland Spring House, Poland Spring, Me. June 21, 22, 23, 1942

The following room rates, which include all meals, will prevail:

Single rooms without bath	\$6.00 per day
Double rooms without bath, per person	\$6.00 per day
Double room and single room with connecting bath, for 3 persons, per person	\$7.00 per day
Two double rooms with connecting bath for 4 persons, per person	\$7.00 per day
Double room with bath for 2 persons, per person	\$7.00 per day
Single room with bath, per person	\$8.00 per day

The charge for non-registered guests for meals will be as follows:

Breakfast	\$1.00
Luncheon	\$2.00
Dinner	\$2.50

Golf green fees will be \$1.00 per day. The tennis courts and Beach Club will be available without charge.

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The Journal of the Maine Medical Association

Volume Thirty-three

Portland, Maine, May, 1942

No. 5

*The Slipping Rib Cartilage Syndrome with Report of Cases**

By JOHN F. HOLMES, M. D., F. A. C. S., Manchester, N. H.†

The purpose of this paper is to call attention to a group of symptoms, notably painful symptoms, involving the rib borders, the chest, the abdomen, and the back, which are associated with abnormal mobility and deformity of the anterior ends of the anterior cartilages of the costovertebral ribs, namely, the eighth, ninth, and tenth on either side, and to describe observations made over a period of twenty-nine years, particularly emphasizing persistent and incapacitating symptoms relieved by a simple operation.

But little has been written on the subject, and scarcely any attention paid to it in textbooks; moreover, since there does not appear to be any general understanding as to what it is, why it occurs, or how the symptoms are produced, it seems advisable to include here much of the material presented in my original paper, *A Study of the Slipping Rib Cartilage Syndrome*,¹ and a subsequent paper, *Slipping Rib Cartilage with Report of Cases*.² Let me state clearly at the beginning that this syndrome is concerned with the anterior ends of the anterior rib cartilages, their interchondral articulations, and the closely related intercostal nerves. It does not involve

the osteochondral junction of the anterior ends of the ribs; and, barring anomalies, mistakes in numbering the ribs, and exceptions, it includes only the anterior cartilages of the first three false ribs, anatomically designated vertebrochondral ribs, which are the eighth, ninth, and tenth on either side.

This symptom complex was first reported by Cyriax,³ of London, in the *Practitioner*, 1919, under the caption:

"ON VARIOUS CONDITIONS THAT MAY SIMULATE THE REFERRED PAINS OF VISCERAL DISEASE AND A CONSIDERATION OF THESE FROM A POINT OF VIEW OF CAUSE AND EFFECT."

In 1922, under the original title, *Slipping Rib*, Davies-Colley,⁴ of London, described two cases of anterior-end anterior rib cartilage displacement which he had operated upon by resection of the loosened cartilage with "complete relief of symptoms."

From this time until 1924 there were published, in the *British Medical Journal*, under the heading, *Slipping Rib*, eight other cases by five authors—Poynton,⁵ of London, three cases; Soltau,⁶ of Ilfracrombie, one case; Marshall,⁷ of London, one case; Mahon,⁸ of

† Surgeon, Elliott Hospital, Manchester, and Hillsborough General Hospital, Grasmere, New Hampshire. Consulting Surgeon, Cottage Hospital, Exeter, New Hampshire, Alexander-Eastman Hospital, Derry, New Hampshire, and Waldo County Hospital, Belfast, Maine.

* Presented at the 89th Annual Session of the Maine Medical Association, York Harbor, Maine, June, 1941.

Galway, Ireland, two cases; Russell,⁹ of Alexandria, Egypt, one case. Of these eight cases, three were operated upon with cure.

In 1931, Bisgard,¹⁰ of Chicago, referred to Davies-Colley's article and reported one case, from the University of Chicago clinics, which he had operated upon with cure.

In this same year, Darby,¹¹ of Vancouver, Washington, reported one case also operated upon by resection of the rib cartilage, with relief of symptoms.

This makes a total of fifteen cases published in medical journals from 1919 to 1931, eight of which were operated upon with cure.

Davies-Colley,⁴ noted: "It is probably not a rare condition and is a trivial enough complaint in itself but it gives rise to most irksome symptoms. . . . In its (the pain's) position at the costal margin it resembles that due to so many deeper lesions of the abdomen and thorax, that I think it is quite likely that many cases occur in which such an apparently unimportant cause as a movable rib cartilage is unsuspected and the diagnosis missed."

Slipping rib cartilage is of common occurrence, and often produces irksome, incapacitating symptoms. It is diagnosed by physical examination, and cured by a simple operative procedure. As stated by Davies-Colley,⁴ "it is curious that it should receive no recognition in modern textbooks of surgery," and by Bisgard,¹⁰ "it has received but little attention in medical literature."

Because of failure to recognize this symptom syndrome, needless laparotomies have been performed, and prolonged suffering and incapacity from an easily curable condition are often permitted. These facts justify an attempt to secure a better understanding and a more general recognition of this entity.

The loosening and deformity of the anterior ends of the anterior cartilages of the vertebrochondral ribs begin first by a pulling away of the fibrous attachment of the anterior end of the cartilage. The deformity is the result of displacement of a fracture fragment or a dislocated cartilage; or, as is usually the case, by a curling upward of the loosened cartilage-end so that, on motion, the deformed end rubs against the inside of the rib cartilage above and against the intercostal nerve, causing pain; also, on certain motions and on manipulation, the deformed end slips over

the rib border with a click that usually can be felt and heard, and a pain that is often severe.

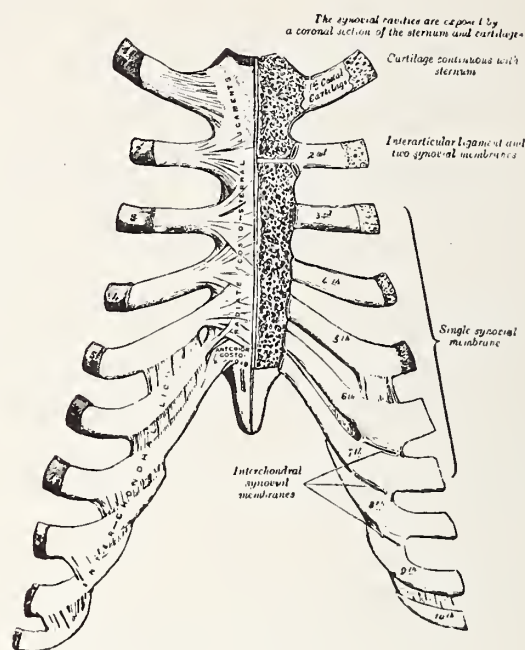


FIG. 113.—Sternocostal and interchondral articulations. Anterior view.

Figure 1, an anatomical diagram of the framework of the anterior chest wall from *Gray's Anatomy*,¹² indicates that the anterior ends of the anterior cartilages of the eighth, ninth, and tenth ribs are normally connected to the ones above, not by a cartilaginous union, but by a fibrous attachment. Less clearly shown, but easily demonstrable, is a fibrous hammock supporting the cartilage end and enclosing the interchondral articulation. This encircling type of attachment lends to the desirable mobility of the lower chest wall and rib borders, but at the same time it has the instability characteristic of any joint, and hence the susceptibility to trauma. Important to remember here in the consideration of cause and effect is the statement of Lilienthal¹³ in his book *Thoracic Surgery*, "the weakest part of the thorax is along the costochondral line on either side." One should bear in mind also, with reference to etiology and symptoms, the various muscle attachments in this region with their divergent pulls, the nerve supplies involved, and the constant respiratory motion.

The intercostal muscles, internal and external, occupy the intercostal spaces. They act to stabilize the chest wall and particularly the intercostal spaces. Their nerve supply is from the intercostals.

The diaphragm arises from the ensiform process, from the rib borders, from the lumbo-

costal aponeurotic arches, and from the lumbar vertebræ; it is inserted into a central tendon. Contraction of the muscle lowers the diaphragm, exerting a strong pull on the rib borders. All expulsive acts, such as coughing, defecation, and the expulsive effort of childbirth, are preceded by a deep inspiration as the diaphragm is called into action to give additional power to abdominal compression. The nerve supply is from the phrenic and lower intercostals.

The abdominal muscles, transversus, internus and externus, are all attached to the rib borders and the cartilages in question. They function to compress the abdomen in the effort of expulsion, and to flex the body, as in climbing, thus exerting a strong pull on the cartilages of the costal margins. The nerve supply of these muscles comes from the intercostals and the lumbar plexus.

The Serratus anterior is attached to the rib border, to the ribs of the anterior chest, and to the scapula. It functions as a whole to carry the scapula forward, and is therefore concerned in the act of pushing. It stabilizes the scapula, and assists the Trapezius in motions of the sterno-clavicular joint, the Deltoidius in raising the arm, and may assist in raising and everting the ribs. Its nerve supply is from the long thoracic which is derived from the fifth, sixth, and seventh cervicals by way of the brachial plexus.

The Latissimus dorsi has an attachment at the rib border, and passes upward, converging into a tendon which is inserted into the upper anterior aspect of the humerus below the lesser tuberosity. Its motion is concerned with the downward pull of the arms, as in felling a tree and in golfing, as well as to assist the pectoral and the abdominal muscles in body flexion. Its nerve supply is from the long thoracic.

All of the muscles described above are attached, in part, to the anterior cartilages of the eighth, ninth, and tenth ribs. Posteriorly attached to the lower ribs, coming from above and below, are the deep muscles of the back. Their action is to assist in bending and stabilizing the spinal column and the trunk. Their nerve supply is from the posterior primary division of the spinal nerves, closely associated with the sympathetics.

I have mentioned the muscles directly attached to the eighth, ninth, and tenth ribs and their cartilages, and have named their nerve supplies which are widely distributed; but other muscles and nerves are involved in the intricate processes of motion at the rib borders. The above is sufficient to suggest an explanation for the many signs and symptoms that characterize the syndrome of the slipping rib cartilage.

ETIOLOGY

Abnormal mobility of these rib-cartilage ends may begin acutely as a result of fracture or dislocation of the cartilage, or more often, as a partial separation of the fibrous attachment. On the other hand, it may be the result of multiple injuries, which have stretched the fibrous attachment over a period of time—as from golfing or one-sided weight carrying. That trauma, direct or indirect, is the etiological background seems reasonable.

Ballon and Spector¹⁴ report eight cases, under the title *Slipping Rib*; and state in summary, "In most instances the slipping rib developed as a result of injury, but the patient frequently failed to attach any importance to the injury."

Deformity of the loosened cartilage-end may result from displacement of a fracture, or dislocation, as appeared in two cases; but is more often due to a curling upward of the loosened cartilage-end so that it rises above the contiguous rib cartilage, mechanically slipping out and in over the superior cartilage on certain movements of the chest or arms, or by digital manipulation, with a click and a pain that are diagnostic.

From an analysis of 68 cases, 15 reported prior to 1938,* 7 by personal communication, and 46 of my own, it appears that slipping rib cartilage results more often from indirect than from direct trauma, there being 36 of the former and 14 of the latter; in 6 cases, both direct and indirect force were in evidence. In the remaining 12 cases no attempt was made to establish a cause, due, I believe, to incomplete histories. It is usually necessary to retake the histories of these cases; for, since the cartilage deformity almost always develops over a period of time

* The eight cases of Ballon and Spector are not included in this analysis.

subsequent to the trauma, the patient frequently does not associate the injury with the complaint, and the cause is not recognized. This is especially true of indirect injury, where, as in coughing or in childbirth, and so forth, the trauma itself is frequently not recognized.

A sudden blow of the steering wheel of an automobile against the lower ribs is one method of direct injury. Indirectly it may be caused by sudden flexion, extension or twisting of the body; by repeated distortion of the body, as the one-sided weight carrying of an industrial worker; by a sudden pull on the arms, as in weight lifting or pushing; by forced compression or expansion of the chest, as in childbirth or coughing; and by many other types of force.

In his original report of this entity, Cyriax³ said: "Pain and tenderness produced by displacement of the anterior ends of the ribs or cartilages is doubtless due to irritation of the intercostal nerves in the vicinity, from which it may radiate to the posterior spinal nerves and thence to the thoracic or abdominal sympathetics."

Figure 2, from Gray's Anatomy,¹² shows the logic of this statement. According to Gray,¹² the intercostal nerves "pass forward in the intercostal spaces below the intercostal vessels." The description continues: "at the back of the chest they lie between the pleura and the posterior intercostal membranes but soon pierce the latter and run between these two planes of intercostal muscles as far as the middle of the rib. They then enter the sub-

stance of the Intercostalis interni and, running amidst their fibres as far as the costal cartilages, they gain the inner surface of the muscles and lie between them and the pleura. Near the sternum, they cross in front of the internal mammary artery and the Transversus thoracis muscle, pierce the Intercostales interni, the anterior intercostal membranes, and Pectoralis major, and supply the integument of the front of the thorax over the mamma, forming the anterior cutaneous branches of the thorax.

"Each nerve is connected with the adjoining ganglion of the sympathetic trunk by a gray and white ramus communicans."

Thus it is seen that the intercostal nerve lies very superficially on the inner surface of the anterior end of the rib and the rib cartilage, so that when the anterior end of the anterior rib cartilage below becomes detached and deformed and slips up under the anterior rib cartilage above, there is a strong likelihood of nerve irritation. This probability is emphasized by the fact that in every case reported, when the deformed cartilage is removed and clearance of the rib-end established, the pain disappears immediately and permanently.

There is a wide distribution of nerves involved, namely, the intercostals, connected with the brachial and lumbar plexuses and the sympathetic system. By way of the sympathetics, the intercostal nerves are in direct communication with the cardiac, the solar or epigastric, and the hypogastric plexuses, which, in turn, have branches to the viscera.

As cited by Cyriax,³ and later by Davies-Colley,⁴ the close association of the intercostal nerves with the sympathetic system accounts for frequent pain symptoms that suggest intra-abdominal or intra-thoracic lesions, and has led to mistaken diagnosis.

Whether the synovial membranes of the interchondral joints that are involved in the slipping rib cartilage deformity contribute in any way to the pain manifested should be considered. So far, the pathological examinations of specimens obtained from these operations have revealed nothing of especial interest.

Deformity of the loosened rib cartilage, to produce the click and the accompanying pain, develops secondarily, and hence may not be

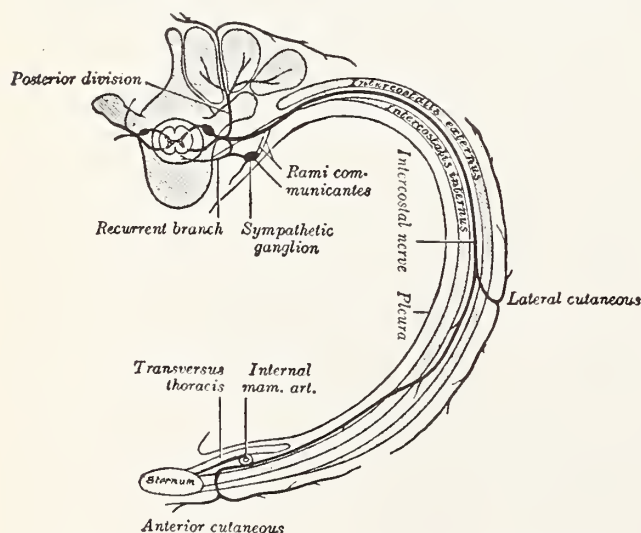


FIGURE 2. Diagram of the Course and Branches of a Typical Intercostal Nerve.¹¹ (Reproduced by permission of the publisher.)

recognized as coming from the original injury. With this in mind, I believe a carefully taken history will, in all cases, show the original cause to be direct or indirect trauma.

DIAGNOSIS

Diagnosis of slipping rib cartilage is made from the history of pain in the chest or abdomen, usually, in part at least, at or near the rib border, and over a period of time. Some of the patients complain of a slipping sensation or of something giving away at the rib borders, associated with pain. Others speak of bunches on, or of soreness of, the rib borders. By digital examination with the patient in supine position and the knees flexed, an area of tenderness at the rib border is noted, especially when the examiner's fingers are well under the rib border and pressing outward. At the same time the abnormally movable rib cartilage, with its associated click and pain, may be demonstrated. The slipping rib cartilage is easy to demonstrate in some cases and difficult in others so that, given a suggestive history, and an area of tenderness at the rib border, a tentative diagnosis can be established, and repeated examinations, or examination under anesthesia, made to confirm it. This is especially true of the acute case where muscle spasm is likely to prevent satisfactory local examination.

The intensity of pain complained of is frequently well away from the rib border in the anterior chest wall, in the breasts, in the heart region, in the shoulder blades, or in the back and the abdomen, but usually there is an associated general soreness of the ribs and an acute localized tenderness at the rib border. It is important to rule out other possible causes or factors, especially when the pain symptoms involve the abdomen and raise the question of an intra-abdominal lesion, and here X-ray examination is of great assistance. The same is true of the chest when a question of fractured rib is considered, either as a cause or contributory factor of pain.

Limitation of chest expansion as demonstrated by measurement is a suggestive diagnostic feature.

Positions of carriage and action of the body and limbs are noteworthy. Some patients are bent forward and to the affected

side; some cannot raise their arms without causing pain. Some have pain in bending forward and on rising from a forwardly bent position, so that they accomplish this act by crouching and rising with the back straight.

It is of the greatest importance in diagnosis to have this syndrome in mind and also to have a clear understanding of its development.

TREATMENT

Cyriax³ treated his patients conservatively, but other cases reported have been treated mainly by excision of the loosened cartilage. This has usually resulted in immediate and permanent relief of symptoms.

Personally, I have treated the acute condition conservatively by adhesive strapping. Later, in the course of one to three months, or longer, if the symptoms persist, and with sufficient severity, I advise operation, excision of the loosened cartilage.

Some of my cases have, in part at least, recovered under conservative treatment. Some of them have declined operation, preferring to tolerate the pain, or are still considering operation. Those patients, twenty-two in number, whose symptoms have continued and who have submitted to operation, were treated by excision of the rib cartilage or cartilages involved, with excellent and often dramatic results.

OPERATION

The incision is made in the direction of the slope of the ribs, three fingerbreadths above the umbilicus and centered at the anterior-axillary line: or starting at a point one fingerbreadth anteriorly and above the tip of the eleventh rib cartilage (which can easily be felt) the incision is made in the direction of the slope of the ribs to the midaxillary line. Having exposed the muscles, the operator's fingers are hooked under the rib border, and an examination made of the tenth, ninth, and eighth rib cartilages, identifying the cartilage or cartilages involved. Supporting the loosened cartilage with the fingers, the muscles are separated down to the cartilage which is to be removed and back to its articulation with the rib. After pushing the anterior muscle attachments away, disarticulation is per-

fibers.

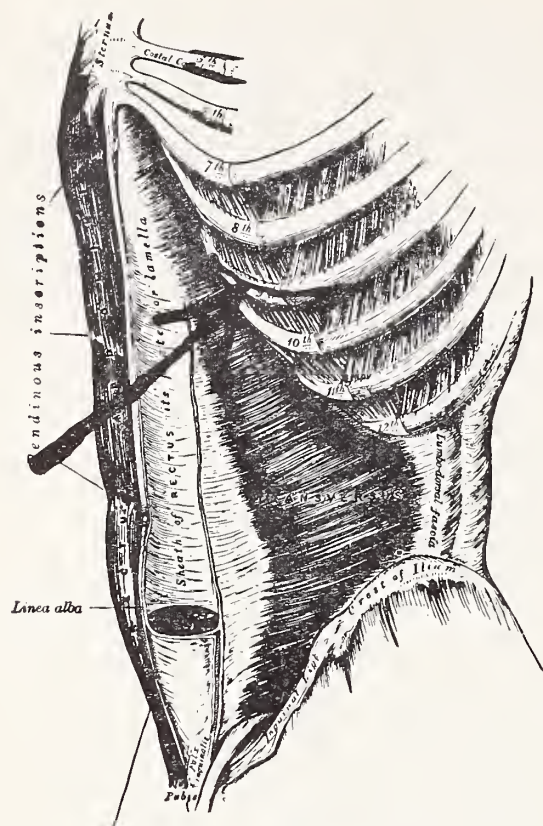


FIG. 397.—The Transversus abdominis, Rectus abdominis, and Pyramidalis.

The arrow indicates the line of incision for removal of the anterior rib cartilages as they pertain to The Slipping Rib Cartilage Syndrome. Owing to the looseness of the skin this one incision makes accessible all three cartilages, namely the eighth, ninth and tenth.

formed, using a scalpel. The disarticulated end of the cartilage is grasped in a double hook, the muscle attachments, laterally and beneath, are dissected off and the cartilage removed. A further examination is then made of the adjacent cartilages for any abnormal motion, or deformity. If found, these cartilages should also be removed. If not found, the incision is closed. Beginning at a point between the end of the operated rib and the rib above, a suture of plain catgut is taken through the intercostal muscles. To this point the adjacent intercostal muscles, previously detached from the cartilage, are drawn in for protection. Continuing with the same suture, the external muscle rent is brought together and the skin incision closed.

CONVALESCENCE

Convalescence is usually uneventful. Temporary bowel and urinary inaction may occur as the operation involves muscles that assist in these expulsive acts. The patient is

usually immediately relieved of the "old pain" and leaves the hospital in from three to ten days. It is important to discriminate between the "old pain" and the pains that patients sometimes have following this, or any other type of operation; hence the value of a carefully taken preliminary history. Otherwise the immediate operative results may be wrongly interpreted.

ANALYSIS OF OPERATED CASES

Of 37 patients operated upon, 8 in the literature prior to 1938, 8 by personal communication and 21 of my own, the ages ranged from six to fifty-seven years; the condition occurred on the left in 14 cases, on the right in 13 cases, and bilaterally in 10 cases.

One rib was involved in 21 cases, 2 ribs in 11 cases, 3 ribs in 1 case and 4 ribs in 4 cases.

There was an area of tenderness at the site of the lesion in all cases. There was a wide variation in the character of pain. In some cases it was dull, in others sharp, especially on manipulation of the cartilage; in still others it was gripping or pulling. In some cases the pain was so modified that it was hardly recognized as such by the patients until questioned, and they frequently did not realize their handicap until they had been relieved of the annoyance.

Pain was constant in some cases; in some it occurred with different positions of the body or after certain types of muscle pull. Instances occurred where remission of symptoms was brought about by rest from work or from forced rest in bed, occasioned by illness.

Following excision of the offending cartilage or cartilages, relief of symptoms was obtained, permanent and usually immediate. There was no mortality.

CASE REPORTS

Case 1. M. I., a 45-year-old mill operative, was first seen at my office on July 10, 1933. He stated that in April, 1933, while putting a belt on a pulley, his overalls were caught by the pulley belt and he was lifted into the air. He fell on the floor, cried out, and was not able to arise. He immediately felt a sharp pain in the hypochondriac region and along the rib border. The pain was sharp, severe, and had continued since then, off and on, be-

ing worse on exertion. Directly after the accident, he was carried from the scene by another employee and was attended by a physician. The following month he was examined by three consultants but no definite diagnosis was made.

Physical examination showed his general condition to be excellent. At the right rib border there was a definite point of tenderness. The anterior end of the anterior cartilage of the ninth right rib was found to be abnormally loosened and deformed—curled up under the rib cartilage above. On manipulation, it could be brought out over the rib border, causing pain and a click that could be felt and heard. The diagnosis (then) was fracture of the ninth right anterior rib cartilage with deformity.

On July 16, 1933, at the Elliot Hospital, Manchester, New Hampshire, an operation was performed. The anterior end of the anterior cartilage of the ninth right rib was found to be abnormally loosened and curled up under the rib cartilage above. On manipulation, it came out over the rib border with a click. The loosened, deformed cartilage was excised.

The wound healed, but the patient was not entirely relieved. Physical examination showed an abnormal loosening and deformity of the anterior end of the anterior cartilage of the eighth right rib.

On July 26, 1933, a second operation was performed, at which time the loosening and deformity of the eighth right anterior rib cartilage was demonstrated, and the cartilage was removed. The patient made an uneventful recovery and on August 11, 1933, was discharged well.

On April 24, 1939, six years later, the patient reported that he was in good health. He could not work at all before the operation but since then he had done all kinds of heavy work, including pick and shovel work, cutting lumber, handling junk and so forth. Physical examination showed the ends of the eighth and ninth right ribs to be smooth and free and not sensitive.

Case 2. P. H., a 30-year-old housewife, was first seen at my office on September 11, 1939, at the request of Dr. F. N. Rogers of Manchester. The patient stated that she had

given birth to six children, each labor being difficult. Since the birth of the last child, sixteen months previously, she had suffered pain in the right upper abdominal quadrant and rib border. This pain was aggravated by deep breathing and by certain movements of the body. These symptoms had been interpreted as gall-bladder disease, for which she had been expectantly treated.

Physical examination showed the patient's general condition to be good. There was a definite point of tenderness at the right rib border. At the ninth interchondral articulation the anterior end of the ninth right anterior rib cartilage was found to be abnormally loosened and deformed—curled up under the rib cartilage above. On manipulation, it could be brought out over the rib cartilage above, producing a click and a severe pain. The diagnosis was slipping rib cartilage of the ninth right rib. The type of force to produce the injury was indirect, from chest stabilization and abdominal compression in the expulsive act of childbirth.

On September 14, 1939, at the Elliot Hospital, Manchester, an operation was performed. The abnormally loosened and deformed ninth right anterior rib cartilage, with its associated click on manipulation, was demonstrated and excised. That evening the patient remarked that the old pain at her right rib border had gone. She made an uneventful recovery and was discharged from the hospital in four days.

On October 24, 1939, the patient reported that there had been no recurrence of pain in her right side, that she was in good health and doing her usual work. Examination revealed no sensitiveness of the right border and no abnormal motion.

Case 3. B. T., a 40-year-old housewife,—a patient of mine for many years—was first seen for this complaint at my office on January 28, 1936. She stated that in November, 1935, she had fallen on the stairs and hurt her chest. She complained of pain in the chest, shortness of breath, and said that her heart beat fast. Her past and family histories were negative.

Physical examination showed the patient's general condition, including the heart and lungs, to be normal. The abdomen was rather

full and thick, and there was some apparent tenderness in the upper abdomen. The blood pressure was 120 systolic, 80 diastolic. The urine was straw color, acid in reaction, specific gravity 1020, albumen 0, sugar 0. The feces were negative for blood.

Subsequently, a tentative diagnosis of peptic ulcer or gall-bladder disease was made.

On March 5, 1936, at the Elliot Hospital, an X-ray examination was reported by Dr. A. S. Merrill as follows: "Graham Test (oral) shows a normally filled gall-bladder which contracts and empties well after fat food. No shadows are seen suggestive of stones."

In June, 1937, the patient was examined at the Massachusetts Memorial Hospital, with the following X-ray report: "June 14, 1937, Gastrointestinal tract: No pathology seen. June 24, 1937, Graham Test (double oral) Good concentration of dye with good contraction of the gall-bladder. Incomplete emptying of the vesicle at 7 hours. Gall-bladder is probably normal with delayed emptying time."

On June 1, 1939, the patient was still complaining of pain near the waistline. She remarked: "It is my ribs. I have said all the time that it is my ribs," and so a careful examination of the rib borders was made. It revealed that the anterior ends of the ninth and tenth anterior rib cartilages on the right, and the tenth on the left, were abnormally loosened and deformed—curled up under the rib cartilage above, and, on manipulation, they could be brought out over the rib borders with an audible click and an associated pain. The diagnosis was slipping rib cartilage of the ninth and tenth right, and the tenth left ribs. The type of force to produce this injury was direct, received at the time the patient fell on the stairs. Operation was advised.

On February 6, 1940, the patient reported that her rib condition had grown worse, that she was suffering and could not work. She was anxious to be operated upon.

On March 16, 1940, at the Elliot Hospital, Manchester, an operation was performed, at which time the anterior ends of the ninth and tenth anterior rib cartilages on the right, and the tenth on the left, were found to be abnormally loosened and deformed—curled up under the rib cartilages above, and, on manip-

ulation, they could be brought out over the rib borders, producing an audible click. The abnormally loosened and deformed anterior rib cartilages were excised. Convalescence was slow in this case. The patient was discharged from the hospital on the thirteenth day, relieved of her pain, but it was nearly three months before she felt well disposed. Since then she has been in good health.

Case 4. A. D., a 25-year-old W. P. A. worker, was first seen at my office on November 12, 1940. He stated that in June, 1938, at an outing, while attempting to dive from a tree, he fell backward, striking in a hyper-extended position. X-ray examination, at the Notre Dame Hospital, Manchester, showed a fracture of the first lumbar vertebra without deformity, for which he was treated by plaster cast with good recovery.

At the time of the accident, and afterward, the patient suffered pain at the rib borders and in the lower anterior chest, particularly on raising his arms, on deep breathing and on forward bending. The pain was constant at first, but later he was fairly comfortable while in repose.

Physical examination showed the patient's general condition to be good. There was a localized area of tenderness at the rib margins, and the anterior end of the tenth anterior rib cartilage on either side was found to be abnormally loosened and deformed—curled up under the rib cartilage above. On manipulation, they could be brought out over the rib borders, producing a click and an acute pain. The diagnosis was slipping rib cartilage of the tenth rib bilaterally. The type of force to produce the injury was indirect, from sudden hyperextension of the spine at the time of the accident.

On November 15, 1940, an X-ray examination of the spine at the Elliot Hospital, "showed no evidence of pathology."

On November 29, 1940, at the Elliot Hospital, an operation was performed. The abnormally loosened and deformed tenth anterior rib cartilages were demonstrated, and excised. The eleventh rib and cartilage on either side were found to be abnormally long. The eleventh anterior rib cartilages were removed for symmetry in relation to the anterior ends of the tenth ribs. For a few days

following operation, the patient had considerable difficulty in bowel evacuation and urination, obviously due to muscle pull on the rib borders in stabilization of the chest and in abdominal compression during those expulsive acts. However, his rib border pains were relieved and he made a good recovery. He was discharged from the hospital on December 12, 1940, and has remained well.

Case 5. O. M., a 47-year-old housewife, was first seen at my office on March 1, 1941. She stated that in December, 1940, she fell on her back with her foot under her. At that time she felt a sharp pain at her rib borders, especially on the right side, and she could "hardly breathe." The pain on the right side continued, and later, pain developed on the left side. She had been continuously incapacitated. While lying down, she was fairly comfortable; but on standing, on walking about, on raising her arms, or on deep breathing, she felt pain at the rib borders, especially on the right side. She had consulted physicians and had been thoroughly examined by X-ray, but no satisfactory diagnosis resulted, and the patient formed the opinion that she had a cancer.

Physical examination showed her general condition to be fair. At the rib borders, the anterior end of the tenth anterior rib cartilage on either side was found to be abnormally loosened and deformed—curled up under the rib cartilage above. On manipulation, they could be brought out over the rib borders, producing a pain and a click. The diagnosis was slipping rib cartilage of the tenth rib bilaterally. The type of force to produce the injury was indirect, from sudden hyperextension of the spine at the time of the fall.

On March 12, 1941, at the Sacred Heart Hospital, Manchester, an operation was performed. The abnormally loosened and deformed tenth anterior rib cartilage on either side (with an associated click, on manipulation, over the rib margins) was demonstrated, and the loosened cartilages were removed.

The rib border pain almost immediately disappeared, but the patient was a little slow in recovering from the operation. She left the hospital on the twelfth day, and gradually re-

gained her normal composure and strength. There has been no return of pain.

Case 6. R. M., a 17-year-old girl, was first seen at my office on July 3, 1941. She stated that six years previously, at grammar school, she tripped and fell down stairs, striking her right side. She had some pain, but thought little of it until about one year later when the pain became worse. She consulted a physician, and an examination (including X-ray examination) was made; but no lesion was found. The symptoms continued, and in September, 1939, further X-ray examinations, including the hips, the pelvis, and the spine, were made; but no abnormality was noted. Pain and discomfort in the rib borders continued. In April, 1941, she began to work in a worsted mill at which occupation she stood on her feet and moved her arms back and forth on a level. After working ten weeks she was unable to continue.

Her complaint was pain at the rib margins, especially on the right side, when walking or standing, and on bending or twisting of the body. The pain began at the rib borders and radiated to the abdomen and the back. She was incapacitated.

Physical examination showed the patient's general condition to be good. At the left rib border there was a localized area of tenderness, the anterior end of the tenth anterior rib cartilage was found to be abnormally loosened and deformed—curled up under the rib cartilage above, and on manipulation it could be brought out over the rib border, producing an audible click and a definite pain. On the right side, the tenderness at the rib border was more marked, and, owing to muscle spasm, motion of the anterior rib cartilages could not be satisfactorily determined or estimated. However, the anterior end of the tenth anterior rib cartilage could be felt curled up under the rib border. The diagnosis was slipping rib cartilage of the ninth and tenth right, and the tenth left ribs. The type of force to produce the lesions was direct on the right side and indirect on the left side, from the blow and sudden flexion of the body at the time of the fall on the stairs.

On July 11, 1941, at the Elliot Hospital, Manchester, an operation was performed.

The abnormally loosened and deformed tenth left anterior rib cartilage, with its associated click as it passed out over the rib border on manipulation, was demonstrated and the cartilage was excised. On the right side the anterior end of the eleventh anterior rib cartilage had apparently been fractured; the distal fragment was drawn upward at right angles and rested underneath the tenth anterior rib cartilage. The tenth anterior rib cartilage was abnormally loosened and deformed—curled up under the rib cartilage above—and on manipulation it could be brought out over the rib border, producing an audible click. The ninth anterior rib cartilage at its proximal end had a cartilagenous union with the eighth anterior rib cartilage, but its distal end was loose. The fractured end of the eleventh right anterior rib cartilage, and the anterior cartilages of the tenth and ninth right ribs were removed. Two days later, the patient stated definitely that her old pain was gone and that she felt well. Four days after the operation she was discharged from the hospital and has remained in excellent health.

SUMMARY

1. Slipping rib cartilage is a loosening deformity involving the anterior ends of the anterior cartilages of the vertebrochondral ribs, namely, the eighth, ninth, and tenth on either side. It is not concerned with the osteochondral articulations.

It begins with a loosening of the fibrous hammock-like attachments of the anterior end of the anterior rib cartilage which may occur at once, or over a period of time, and is followed by a deformity—a curling upward of the cartilage-end so that it rises to the inside of the rib cartilage above and comes in close relation to the intercostal nerve, the seat of the pain.

It is always of traumatic origin, either direct or indirect, more often the latter; occurring singly, and as multiple and bilateral lesions.

Age or sex are of no consideration.

2. The cartilage deformity usually develops over a period of time subsequent to the loosening. The patient frequently does not associate the injury with the complaint, and

the cause is not recognized; this is particularly true of indirect injury.

Aside from direct injury, this loosening may occur from indirect force in many ways, due to the several muscle attachments, and the different directions and degree of muscle pull.

There is a wide distribution of nerves involved, namely, the intercostals connected with the brachial and lumbar plexuses and the sympathetic system. By way of the sympathetics, the intercostal nerves are in direct communication with the cardiac, the epigastric, and the hypogastric plexuses which, in turn, have branches to the viscera. Thus the pain manifestations cover a wide field.

The intensity of pain complained of is frequently well away from the rib border—in the anterior chest wall, in the breast region, in the shoulder blades, in the back, in the abdomen, and so forth; but usually there is an associated general soreness of the “ribs” (so spoken of by the patient) and a localized area of tenderness at the rib border.

3. Diagnosis is made from the history of pain in the chest or abdomen over a period of time. Usually the pain is in the anterior chest at, or near, the rib borders. There is a localized area of pain at the rib margin, the site of the lesion. By digital manipulation, with the patient in supine position and the knees flexed, the abnormally loosened and deformed cartilage can be brought out over the rib border with a click and a pain that is diagnostic. X-ray examination is of assistance in ruling out deeper lesions of the chest and the abdomen.

4. The pain of slipping rib cartilage is not like other pains. It is usually a dull ache, and is often tolerated for years, even a lifetime. Some patients scarcely realize that they are impaired until operation is performed and their annoyance is taken away. Others suffer severely, and are acutely and completely incapacitated.

There are many cases of obscure pain associated with the chest and abdomen which may have as their origin the slipping rib cartilage. Therefore, examination of the rib borders should be made routinely.

Continued on page 101

*Pulmonary Suppuration Secondary to Esophageal Diverticulum**

By FREDERICK T. HILL, M. D., The Thayer Hospital, Waterville, Maine

Jackson states that patients with esophageal diverticula may have pulmonary symptoms from overflow of food or secretions. The pulsion diverticulum of the upper esophagus is formed by the herniation of the mucosa and submucosa through the weak portion of the posterior wall where the musculature is absent. The resulting pouch gradually increases in size and gravitates downward from the weight of the swallowed food which accumulates in the pouch and only overflows into the esophagus. The lumen of the esophagus becomes increasingly narrowed by the diverticulum pulling down on the sling fibers of the cricopharyngeus. This lumen to the subdiverticular esophagus is always situated high on the anterior wall just behind the larynx. Sometimes it is almost impossible to identify this on endoscopic examination. With a tightly narrowed lumen resulting from a large pouch conditions would seem almost ideal for a spill over into the respira-

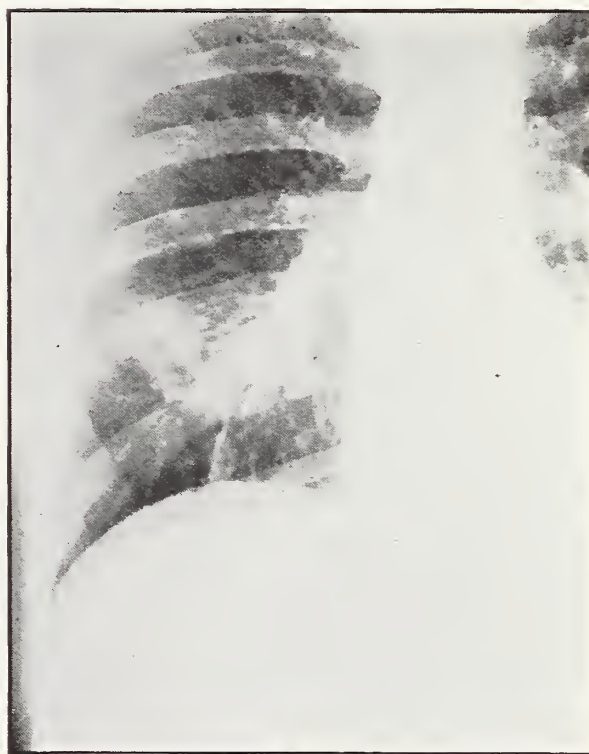
tory tract. Previously unrecognized esophageal diverticula would seem to be the direct causes of pulmonary infection in the following two cases:

Case No. 1. Mr. R. L., age 34. Seen in consultation at the Central Maine General Hospital, Lewiston. This patient had had difficulty in swallowing for several months. Four weeks prior to admission he had choked while trying to raise accumulated secretions from his throat. Shortly after this he had sharp pain in his right lower chest and developed a cough, loss of weight and strength, and drenching night sweats. Cough was productive only in the morning. Four days prior to admission he had raised some blood.

He carried a slight temperature averaging 100, and examination of the lungs revealed a few râles heard posteriorly at the inner margin of the right scapula, at the end of deep inspiration. R. B. C., 4,670,000,



#1—Case 1. Roentgenogram showing esophageal diverticulum.



#2—Case 1. Roentgenogram showing pulmonary abscess.

* Read at the meeting of the N. E. Oto-Laryngological Society, Boston, Massachusetts, November 19, 1941.

W. B. C., 16,300, Polymorphonuclears, 84%. Kahn negative. Blood sedimentation rate, 26 mm. Sputum examination showed gram negative diplococci in sarcenae formation, gram positive cocci in chains.

Roentgenological examination showed an area of increased density posteriorly in the right lower lobe of the lung, consistent with a lung abscess. X-ray of the esophagus showed the hypopharynx to end in a blind pouch. From the anterior wall of this area, almost 2.5 cm. above its lower portion, the barium continued into the esophagus. This was consistent with esophageal diverticulum.

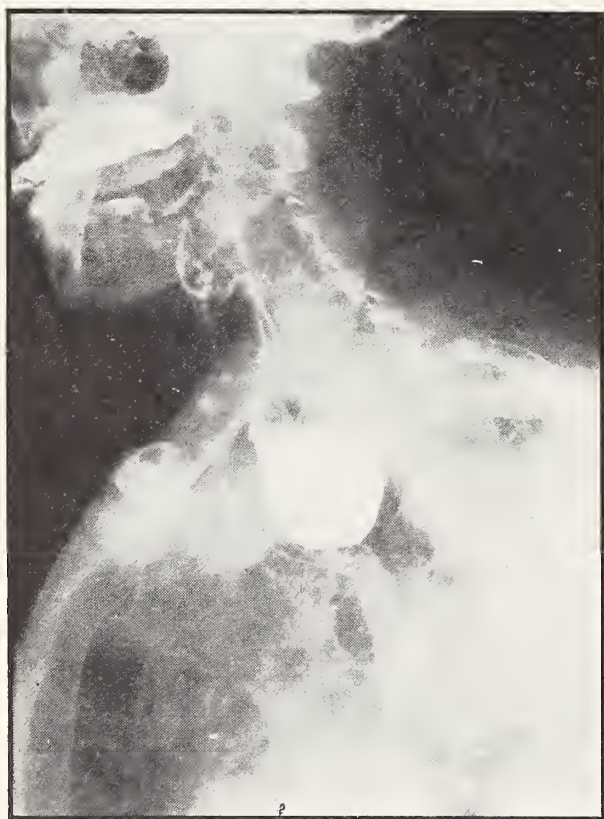
Bronchoscopic examination showed purulent secretion coming from a secondary dorsal branch in the right lower lobe bronchus. Esophagoscopy revealed a moderate sized but shallow diverticulum at the level of the cricopharyngeus. The narrow lumen of the sub-diverticular esophagus was found anteriorly. Below this the esophagus was normal. Just above the diverticulum there was a crescentic web on the left side, which was evulsed.

As no improvement followed conservative treatment, external operation with insertion of drainage tube into the abscess cavity was performed by Dr. William J. Cox. Following this there was a gradual uneventful con-

valescence. There has been no recurrence of cough or evidence of activity in the chest. The patient reports he is swallowing with much less difficulty although of course the diverticulum is still present.

Case No. 2. Miss C. S., age 66, a thin, emaciated woman suffering from a crippling multiple arthritis. Seen in consultation with Dr. J. O. Piper at the Thayer Hospital. She had had increasing difficulty in swallowing for 44 years. For some time she had been carrying a temperature of 100-101. She had been in another hospital for a number of months, where a diagnosis of tuberculosis had been made from the lung condition. No attention had been paid to the esophageal symptoms. Dr. Piper had been unable to concur in this diagnosis of tuberculosis but strongly suspected esophageal diverticulum from her history. She had a productive cough and râles were always present in both lungs. Sputum was never positive for tubercular bacilli. For many months she had been taking mineral oil routinely.

Roentgenological examination showed a coarse infiltration throughout both lungs. There was a large esophageal pouch 4.5 cm. broad by 5.5 cm. deep, extending to the aortic



#3—Case 2. Roentgenogram showing very large esophageal diverticulum.



#4—Case 2. Roentgenogram showing diffuse pneumonitis probably secondary to aspiration of mineral oil.

arch. Barium was seen to overflow from the top of the pouch to the left and to pass down anteriorly to fill a normal appearing esophagus. At times barium was seen to spill over into the larynx.

Endoscopic examination, under local anaesthesia, revealed a very large diverticulum. The lumen of the subdiverticular esophagus could not be identified. There was considerable secretion in both main bronchi and some barium mixture was recovered from the right bronchus.

The patient was referred to Dr. Frank Lahey, who performed a two-stage operation for the removal of the diverticulum. She made a satisfactory convalescence, and is now taking food perfectly well. She has gained weight but Roentgenological examination shows little change in her lung condition.

Obviously she has had an aspiration pneumonitis from the diverticulum. It is interesting to speculate upon the part played by aspirated mineral oil in producing a lipoid pneumonitis and the prognosis of this latter condition. In all probability these lesions due to aspirated lipoid will be permanent.

SUMMARY

Two cases of pulmonary infection secondary to overflow from esophageal diverticula are reported. One was a case of frank lung abscess, relieved by operation, in which the esophageal symptoms seem improved, at least for the present. The second case was one of pneumonitis, with probable lipoid aspiration, in which operation cured the diverticulum but with little possible change in the lung condition.

The Slipping Rib Cartilage Syndrome—Continued from page 98

5. Information relative to the slipping rib cartilage syndrome should be generally disseminated.

6. Treatment: The acute condition should be treated conservatively. Later, in the course of from one to three months, if the symptoms persist with sufficient severity, excision of the loosened, deformed cartilage or cartilages involved should be advised. Operation results usually in immediate and permanent relief of symptoms. There has been no mortality.

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Editorial

An Opportunity to Serve

The enormity of the effort, sacrifice and demands to be made, that the American Way of Life be continued, must be apparent to any one who enjoys the ability to think. We must grasp the significance of what we must do in an effort, well termed all out, to preserve our very existence on earth. The military cabal of Japan and Germany appreciate this fact and know beyond question it is them or us. If success is theirs the price of defeat cannot be measured in terms of anything but economic and social slavery of the most hideous type. Any doubt or confusion on this point poorly becomes a nation occupying the position of the United States.

Perhaps no other category of professional men occupies the position that medicine does today. The scientific achievements of medicine in the United States, the development of our vast and envied hospital systems are the end results of conditions and principles that have made them possible. They must and will be preserved and that means we must and will win this war. We would be a pitiful people indeed, with all our resources; financial, technical and scientific, if any other idea could be entertained. Willing or not, the peoples of Germany and Japan are behind their war-lords in an attempt to enslave two thousand million human beings who inhabit this earth; can we as a nation do less than accept the challenge that means our very lives?

War today is a far, far different affair than that of World War I. It is a war demanding the highest of technical and special skills and as a profession we are fortunate that American Medicine is in the position to offer services that bring with them a justified warrant they are the best obtainable. Six thousand, one hundred physicians must be supplied before the end of the present year to provide adequate medical care for the Air Force; two thousand, five hundred before July 1st. What a sufficient and skilled Air Force means was apparent to the military

and naval rulers of Japan and Germany years ago and much of their present success is due to that branch of their armed service. Are we any less intelligent? The Navy will need a total of 3,000 doctors when its enlistment of 500,000 is reached; 16,000 new physicians must be supplied before January, 1943. Civilian and industrial requirements, plus other services, are not a whit less important, the medical personnel for which will probably come from the older groups and men handicapped by physical defects. It should be obvious to all medical men in the induction possibility that the criteria for deferment from military services of physicians cannot be the same as for laymen of the same age having an equal number of dependents. A doctor has the practical assurance of a commission and his dependents can be supported on an officer's pay.

As far as known no other group of professional men has available the assistance which is afforded by the Procurement and Assignment Agency. Established by Presidential executive order the service is in a most enviable position to meet our rapidly increasing needs and insure an irreducible minimum of sacrifice and interruption of civilian needs, but the service cannot engage to its full value unless it has the utmost coöperation from the profession. Thousands of physicians who are under 45 years of age are, under the rules of the Selective Service Act, liable for military service and those not holding commissions are liable to *induction*. The JOURNAL has credible information that *induction* will mean *at least* three months' service in the ranks before a commission is possible. Recognizing the injustice and stupidity of wasting such skills as medicine demands, the government, through and by the Procurement and Assignment Service, has afforded *every* physician the *opportunity* whereby he will be certified for positions commensurate with his professional training and experience as requisitions are placed with the service requiring the assist-

ance of those whose good fortune it is that they can bring so much needed help to their country.

By means of this system, national in its scope, medicine has been placed in a most enviable position. The need was seen and established, long before Pearl Harbor was a fact, by the American Medical Association

and the men who comprise the working personnel have been allocated a duty and responsibility they will carry out with a due and high regard for the obligation that is theirs. It is a pity indeed that such a hideous thing as this war is a matter of fact. Since it is, peace and decency can return only when we win.

Defense Savings

The Japanese onslaught on Pearl Harbor, the Philippines, Malaya and Java, the Nazi attacks on our merchant ships have brought America face to face with the reality of war—war that encircles the globe. We know that this is *our* war, one which demands all-out effort in service, materials, machines and money.

We as physicians and surgeons are well aware of the importance of medical service in the nation's all-out fight for freedom. We have already shown our willingness to serve on foreign and home battlefronts in the care of both armed and civilian forces. This is our professional job. But we must do even more.

As Americans, we must help provide the money to expand the war program to the maximum of our resources. Tax dollars are not enough. Loans to the Government from banks do not make up the deficit. We as individuals must lend our dollars to the government through the purchase of war securities—THE UNITED STATES SAVINGS BONDS.

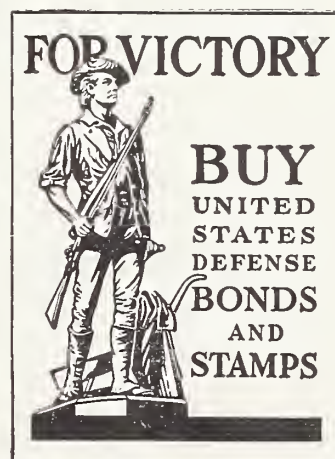
The dollars invested in United States Savings Bonds buy planes, tanks, ships and guns, and safety. The buying of these securities reduces our own purchasing power for material goods and thereby serves as a check upon runaway prices and inflation. For us as individuals, the securities represent savings which grow in value.

Series E Bonds are "People's Bonds" which can be purchased only by individuals. The smallest costs \$18.75 and pays \$25.00 at

the end of 10 years—a $33\frac{1}{3}$ per cent increase in value. An E Bond may be redeemed by an owner any time after sixty days from the date of issue. Hence, we can draw upon these financial reserves in case of need.

Series F Bonds are also appreciation bonds, but these may be purchased by associations and corporations as well as individuals. The F Bonds are 12-year bonds which provide a return equivalent to an annual interest rate of 2.53 per cent. The smallest costs \$18.50 and pays \$25.00 in 12 years; the largest costs \$7,400.00 and pays \$10,000.00 at maturity. Bonds of Series G are sold at par in denominations from \$100.00 to \$10,000.00, and these bonds pay interest at the rate of $2\frac{1}{2}$ per cent throughout their 12-year maturity period.

Freedom Bonds, Victory Bonds—we must buy and continue to buy these war securities. We must put our dollars into the front line battle in America's fight for freedom.



Necrology

Bertrand Francis Dunn, M. D., 1844-1942



At the time of his death, which occurred on April 11, 1942, Doctor Dunn probably was the oldest physician in the State of Maine, having been born on January 9, 1844, in the town of Oxford, one of eight children of James and Ruth Strout Dunn. In his fourth year, the family moved to a rocky farm on Pigeon Hill, Poland, where the father eked out a livelihood for his hungry brood by barter.

Also at the tender age of four, the Doctor informed the writer, he decided to become a physician, a decision prompted wholly by his admiration of his family doctor's "horse and gig." However, his father, ever mindful of the necessity for providing his children with as good an education as was possible, sent young Bertrand to High School at Minot's Corner and Lewiston Falls Academy, then to Kent's Hill Seminary for two years, and later, to Edward Little Institute at Auburn, Maine.

When he was eighteen, he and six of his schoolmates enlisted in the 23rd Maine Volunteers and served nine months in the Civil War. After returning with the Regulars to Camp Lincoln at Ligonias (South Portland), he and his chums were sent by steamer to Jersey City and thence to Washington. His most vivid recollection of the latter place was that of marching up Pennsylvania Avenue in mud over his ankles, following a drove of hogs. Now followed a visit to Maryland where he did picket duty on the banks of the Potomac, at Camp Seneca, later at Alexandria, Virginia, Harper's Ferry and Maryland Heights. He de-

lighted to say, "all I ever shot at during the war was a muskrat and I'm not sure that I killed him."

Having been duly mustered out of the service in 1863, our young patriot sought some means of earning money with which to pursue his medical studies at Bowdoin. An opportunity presented itself at Ricker Hill School where the superintendent wanted a man for the winter term whom the boys could not ride on a rail. Young Dunn accepted this double-barrelled challenge with alacrity "and," he chuckled, "I missed the pleasure of one of those rides." From teaching, he went to the State School for Boys at South Portland in charge of the Chair Shop at thirty dollars a month.

His medical education really began in 1865, when, as a student of the late Doctor Seth C. Gordon, whose office was in the Morton Block near the Preble House, he cared for the doctor's office for his tuition. That fall he "took a course of lectures at Bowdoin and came home dead broke." But a job selling life insurance at fifty dollars a month, plus another year's teaching at West Poland, plus a loan enabled him to complete his medical education, and he received his medical degree in 1868. Dr. Gordon gave him the use of one of his offices on condition that he care for both. This arrangement lasted four months, during which time, Dunn stated, "I had two patients, an Irishman and a Negro woman."

In '68, he "bought out" one Doctor John Kimball of Harrison, and hung out his shingle in George Pierce's house in the village. Much to his dismay and alarm, for he never had seen an obstetric case, he was called first to attend a woman in confinement. It always gave him pleasure to recount that experience something after this fashion: "My riding gear was an old black pacer and a two-wheeled gig. My first call was in the night, which was very gratifying to me, as I had a dread of being seen in that rig in the daytime. As this was my first confinement case, I was rather excited and had some trouble getting my clothes on right. I put my vest on wrong side out. The worst was yet to come, however, for when I went to harness my horse, I got the breeching over the horse's neck and the breastplate under his tail. When I thought I had everything right, I got into the gig only to discover that the bits were not in the horse's mouth. But, once in order, 'I set out at a 2.40 clip,' thinking of all the things that might happen to my patient, of what I should do and say. Arriving at my destination, I entered the sitting-room with fear and trembling, waiting until I should be called to the sick room as I had been taught to do by my instructors. Then came the dread moment, when, in the presence of several wise old ladies of the neighborhood, I *had* to examine my patient and report progress. Hesitating, lest I should expose my ignorance, I was at a loss for words but finally said, 'H'm!! She effervesces well'."

This case having terminated happily for all concerned, our young doctor felt that his footing was secure in Harrison and, accordingly, he married Miss Clara Towle of Westbrook. They remained two years in this town, when they learned that a Doctor Kilgore was leaving Windham Hill.

Promptly the doctor and his bride packed their belongings into barrels, loaded these on a canal boat and set out for Windham Hill, there to remain until he established his final residence in Portland in 1886.

From the day that he nailed up his sign on the Hill, things medical were well Dunn in that neck of the woods where his presence proved to be a daily benediction to the community. Strong, sensible, whole-souled, living a life of self denial and tender sympathy, albeit at times a trifle declamatory, he came to know the "blessing which maketh rich and addeth no sorrow."

His hobby was pool which, until his ninetieth year, he played daily at the Portland Club, rain or shine. Then came supper, the evening paper, and early to bed. Dunn was a dyed-in-the-wool Republican, having cast his first vote for Abraham Lincoln.

He was throughout his long life in Portland a member of the Williston Congregational Church and he practised his religion in his daily living.

His rules for longevity were stated by him as follows,—“Behave yourself. Lead a good, clean, moral life. Eat regular meals. Go to bed at a reasonable time, and, when you go to bed, go to sleep, and sleep until morning. And don't worry, for worry, you know, is one of the 'little foxes that spoil the vines'.”

Thus, one by one, are severed the ties which bind us to the medical past, a time when it took indomitable courage, and perseverance and physical stamina and character like Dr. Dunn's to endure.

Mrs. Dunn having passed away in 1928, the doctor's survivors include twenty-three nephews and nieces, all of them college graduates.

E. W. GEHRING.

County News and Notes

100% Paid-Up Membership for 1942

**Piscataquis County Medical Society
Franklin County Medical Society
Washington County Medical Society
Lincoln-Sagadahoc Medical Society
Hancock County Medical Society
Oxford County Medical Society
Penobscot County Medical Society
Knox County Medical Society
Aroostook County Medical Society
Waldo County Medical Society**

Cumberland

The 164th meeting of the Cumberland County Medical Association was held at the Lafayette Hotel, Portland, Maine, on Friday, March 27, 1942, at 6.30 P. M.

The meeting was called to order by Roland B. Moore, M. D., President.

Distinguished guests present from the Maine Medical Association, each of whom addressed the meeting briefly, were: Carl H. Stevens, M. D., President-elect, Belfast; Stephen A. Cobb, M. D., Chairman of the Council, Sanford; and Currier C. Weymouth, Chairman of the Scientific Committee, Farmington.

The speaker of the evening was Gordon M. Morrison, M. D., of Boston, who spoke on "Fractures." His paper was discussed by Drs. Milton S. Thompson, Thomas A. Martin, and Henry W. Lamb.

James Patterson, M. D., was admitted to membership by transfer from the Westchester County Society of New York.

The application of James B. Morrison, M. D., was received and referred to the Council.

The meeting was preceded by a Clinic at the Maine General Hospital at 5.00 P. M. The program was as follows:

1. Subcapital Fracture of the Neck of Femur—Thomas A. Martin, M. D.

2. Smith-Peterson Cup Arthroplasty—Henry W. Lamb, M. D.

3. Difficulties in X-ray Diagnosis of Small Chip Fractures—Jack Spencer, M. D.

4. Fracture of Spine Without Definite Localizing Symptoms—Langdon T. Thaxter, M. D.

5. Compound Comminuted Fractures of the Lower Femur—Leo McDermott, M. D.

6. Traumatic Radiculitis Following Injury to the Cervical Spine—H. Eugene Macdonald, M. D.

Respectfully submitted,

EUGENE E. O'DONNELL, M. D.,
Secretary.

Portland Medical Club

The regular monthly meeting was held at the Columbia Hotel, February 3, 1942, at 8.15 P. M. There were thirty-six members and one guest present.

Drs. Joseph G. Ham and Sidney R. Branson were elected to membership.

The Club voted to change the place of meeting to the Eastland Hotel.

Resolutions on the death of Doctor Charles B. Sylvester were adopted.

The Scientific Program was presented by Dr. Mortimer Warren and Dr. Joseph E. Porter. Dr. Warren spoke on *Anemias — Classification and Treatment*. Dr. Porter dealt with *Transfusions of Blood, Plasma, and Blood Substitutes. Reaction to Transfusions, Administration of Blood Banks*. Dr. Warren introduced Dr. Preston Kyes who gave a most interesting account of his personal acquaintance with and his appraisal of Paul Ehrlich.

Following the meeting light refreshments were enjoyed.

Respectfully submitted,

ALICE WHITTIER,
Secretary.

The regular monthly meeting was held at the Eastland Hotel, March 3, 1942, at 8.15 P. M., with Dr. F. J. Welch presiding. There were thirty members present.

Dr. E. A. Greco presented the paper of the evening. In dealing with the subject *Hypertension*, he defined hypertension, stressed the importance of detecting it in the early stages, told the fate of the hypertensive patient, and discussed treatment. He called upon Dr. J. E. Porter for a discussion of the pathology, and upon Dr. H. E. Macdonald to speak of the surgical approach to the problem.

Following the meeting light refreshments were enjoyed.

Respectfully submitted,

Alice Whittier,
Secretary.

Kennebec

A meeting of the Kennebec County Medical Association was held at the Augusta General Hospital, on Thursday, April 16, 1942.

Clinical Session at 5.00 P. M., which was presided over by L. Armand Guite, M. D., President:

1. Lung Abscess—P. E. Provost, M. D.
2. A Case of Fibroid of Uterus with Degeneration of Fibroid—M. T. Shelton, M. D.

Brig. General John G. Towne, State Chairman of the Procurement and Assignment Service gave a very interesting and instructive talk on the Procurement and Assignment of physicians for military service.

Dinner at 6.00 P. M., which was followed by a business meeting. Minutes of the last meeting were read and approved.

Guests at the meeting included: P. L. B. Ebbett, M. D., President of the Maine Medical Association, and Carl H. Stevens, M. D., President-elect of the Maine Medical Association. Dr. Ebbett spoke briefly on matters pertaining to the State Association especially from a military angle.

The speaker of the evening was Ethan Allen Brown, M. D., of Boston, Mass., who is associated with the Pratt Diagnostic Hospital. Dr. Brown spoke on *Allergy*. His talk was very interesting; he outlined the different types of allergy and discussed treatment. This was followed by a general discussion.

The meeting was unusually well attended, 50 members and guests being present.

Respectfully submitted,

Frederick R. Carter, M. D.,
Secretary.

Penobscot

The regular monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Bangor, Maine, on Tuesday, March 17, 1942.

John S. Houlihan, M. D., resident of the Eastern Maine General Hospital, was elected to membership.

A very interesting symposium on *Gall Bladder and Stones in the Biliary Tract* was presented by the following:

Surgery (illustrated by motion pictures)—F. V. Hussey, M. D., Providence, Rhode Island.

Anaesthesia—Myer Saklad, M. D., Providence, Rhode Island.

X-ray Studies of the Biliary Tract—E. W. Benjamin, M. D., Providence, Rhode Island.

There were fifty present.

Forrest B. Ames, M. D.,
Secretary.

York

A meeting of the York County Medical Society was held at the Hillcroft Inn, York Harbor, Maine, on Wednesday, April 8, 1942.

Following dinner the business meeting was opened by Carl E. Richard, M. D., President.

Elected to membership were: J. Robert Downing, M. D., Kennebunk; Marion K. Moulton, M. D., West Newfield; John J. Murphy, M. D., Wells Beach; and Robert D. Vachon, M. D., Sanford.

The next meeting will be held in Sanford with Stephen A. Cobb, M. D., as Chairman.

The speakers of the evening were:

David E. Dolloff, M. D., Biddeford. Subject: *Civilian Defense*.

Eugene H. Drake, Lieut. Comdr., M. C., U. S. N. Subject: *Medicine*.

Rolf Lium, M. D., Portsmouth, N. H. Subject: *Surgery*.

There were twenty-five members and guests present.

Respectfully submitted,

C. W. Kinghorn, M. D.,
Secretary.

New Members

Cumberland

James Patterson, M. D., 614 Highland Avenue, South Portland, Maine (by transfer from the Westchester County Society, New York).

Penobscot

John S. Houlihan, M. D., Bangor, Maine.

York

J. Robert Downing, M. D., Kennebunk, Maine.
Marion K. Moulton, M. D., West Newfield, Maine.
John J. Murphy, M. D., Wells Beach, Maine.
Robert D. Vachon, M. D., Sanford, Maine.

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Notices

Coming Meetings

National Medical Societies

American Medical Association

Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

Annual Meeting—Atlantic City, June 8-12, 1942.

State Medical Societies

Connecticut State Medical Society

Creighton Barker, M. D., 258 Church Street, New Haven, Secretary.

Annual Meeting—Middletown, June 3-4, 1942.

Maine Medical Association

Frederick R. Carter, M. D., 142 High Street, Portland, Secretary.

Annual Meeting—Poland Spring, June 21-23, 1942.

Massachusetts Medical Society

Michael A. Tighe, M. D., 8 The Fenway, Boston, Secretary.

Annual Meeting—Boston, May 26-27, 1942.

New Hampshire Medical Society

C. R. Metcalf, M. D., 5 South State Street, Concord, Secretary.

Annual Meeting—Manchester, May 12-13, 1942.

Rhode Island Medical Society

W. P. Buffum, M. D., 122 Waterman Street, Providence, Secretary.

Annual Meeting—Providence, June 3-4, 1942.

Vermont State Medical Society

Benjamin F. Cook, M. D., 154 Bellevue Avenue, Rutland, Secretary.

Annual Meeting—Bennington, October, 1942.

State of Maine

Board of Registration of Medicine

Adam P. Leighton, M. D., Portland, Secretary.
List of Physicians licensed on March 11, 1942.

Through Written Examination

David Davidson, M. D., Greenwood Mountain, Maine.

Gisela Kaufer Davidson, M. D., Greenwood Mountain, Maine.

James Canfield Fisher, M. D., Arlington, Vermont.

Gerhard Hirschfeld, M. D., State Hospital, Bangor, Maine.

Kenneth Abram LaTourette, M. D., 68 Perham Street, Farmington, Maine.

Charles Louis Quaglieri, M. D., 3 Armstrong Avenue, Jersey City, N. J.

Paul Edward Taylor, M. D., Rogers Road, Kittery, Maine.

Through Reciprocity

Carl M. Haas, M. D., Beaver Dam, Kentucky.

Harry Kopfmann, M. D., Deer Isle, Maine.

Armin Lichter, M. D., Wesley Hospital, Wichita, Kansas.

Jay Kershner Osler, M. D., 156 State Street, Bangor, Maine.

Thomas Dennie Pratt, M. D., Waterville, Maine.

David Shapiro, M. D., 5001-17th Avenue, Brooklyn, New York.

Dwight E. Wilson, M. D., 70 Howe Street, New Haven, Connecticut.

Tumor Clinics

Bangor:

Eastern Maine General Hospital

Thursday, 11.00 A. M.-12.00 M.

Director, *Magnus F. Ridlon, M. D.*

Lewiston:

Central Maine General Hospital

Tuesday, 10.00 A. M.-12.00 M.

Director, *E. C. Higgins, M. D.*

St. Mary's General Hospital

Wednesday, 4.00 P. M.

Director, *R. A. Beliveau, M. D.*

Portland:

Maine General Hospital

Thursday, 11.00 A. M.-12.00 M.

Director, *Mortimer Warren, M. D.*

Waterville:

Sisters Hospital

1st & 3rd Thursdays, 10.00 A. M.

Director, *B. O. Goodrich, M. D.*

Thayer Hospital

2nd & 4th Thursdays, 10.00 A. M.

Director, *E. H. Risley, M. D.*

Venereal Disease Clinics

For the information of physicians wishing to refer cases of venereal disease for treatment, the State Bureau of Health announces that such facilities are available in the following locations:

Augusta, Bangor, Bath, Belfast, Biddeford, Bingham, Calais, Danforth, Eastport, Ellsworth, Grand Isle, Guilford, Houlton, Island Falls, Lewiston, Millinocket, Old Town, Portland, Presque Isle, Rockland, Rumford, Sanford, Waterville, Wilton, Winthrop.

Any physician wishing to refer a case may obtain the name of the clinic physician, in the town where the patient is to receive treatment, on request to the Director, State Bureau of Health, Augusta, Maine.

Vice President of Upjohn Firm Dies

Malcolm Galbraith, vice president and director of sales of the Upjohn Company, died Friday morning, April 10th, in Kansas City.

Mr. Galbraith was born in Bowmanville, Ontario, Canada, October 23, 1876. He received his bachelor pharmacy degree at Ontario College of Pharmacy in 1898, entering the drug business in Ontario the same year. He later became a naturalized citizen of the United States. In 1909, he left the H. K. Mulford Company, of Philadelphia, to join the Upjohn Company. In October, 1929, he was elected to the board of directors and named director of sales. He was made vice president of the company in May, 1936.

Book Reviews

"A Manual of Bandaging, Strapping and Splinting"

By: Augustus Thorndike, Jr., M. D., F. A. C. S., Associate in Surgery, Harvard Medical School; Surgeon to the Department of Hygiene, Harvard University.

Illustrated with 117 Engravings.

Published by Lea & Febiger, Philadelphia, 1941. Price, \$1.50.

This flexible cover manual is expected to supply useful elementary information concerning the use and application of bandages, strappings and splints to the inexperienced medical student, the pupil nurse and other lay persons who are called upon to supply this service of medical or surgical after-care.

"Necropsy—A Guide for Students of Anatomic Pathology"

By: Bila Halpert, M. D., Assistant Professor of Pathology and Bacteriology, Louisiana State University School of Medicine, and Visiting Pathologist, Charity Hospital of Louisiana at New Orleans.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$1.50.

This guide is based upon the principles of the method employed by Anton Ghon. It considers the topography and anatomy of the various organs in detail and gives special attention to regional lymph nodes and tributary blood vessels. The workings of the method are illustrated by sample necropsy records. The pocket-sized little volume may prove to be of considerable value as a guide for anyone who is occasionally called upon to perform necropsies.

"From Cretin to Genius"

By: Dr. Serge Voronoff.

Published by Alliance Book Corporation, New York, 1941. Price, \$2.75.

"The man of genius is a creator." . . . "Genius is an inborn autonomous faculty, dependent of general mentality, and manifested by sudden inspiration." . . . "Anatomically, genius is always united to a particular structure, to a particular organization of the brain."

It could be very fortunate for mankind if this and this alone were true. It is most unfortunate for mankind that the creativeness of an anatomically determined, autonomously functioning brain does not always create constructively. The readers of this book will do well to be very grateful to the author of this very interesting and illuminative work for presenting only the benevolent examples of human genius and kindly forgetting to mention any of the uncountable examples of the malevolent varieties. He seems to feel that mankind at large does not treat genius well but if "a being truly endowed with genius is a slave to his genius," and because in order "to manifest it becomes a need and a necessity which he can no longer control," society must be partly forgiven for her various attempts to force the creativeness

of genius into channels acceptable to contemporary mankind. Humanity of necessity moves slowly and en masse, never with the spurt-like rapidity and single-mindedness of the genius. When our untiring genius finally dies by natural or other means after a most active and restless life full of creativeness and often filled with battling against massed antagonism his creations can then slowly be adjusted by the gradually developing new tastes and needs of mankind. The life of the genius is almost always consuming itself in expressing in his own way the liberation or exteriorization of the tensions as they accumulate within his innermost being. The author skillfully illustrates the various kinds of benevolent creative constructive human genius. He very wisely chose to tell us of some of the main features which made some of our most famous geniuses immortal and did not dwell too much upon the details of Cretinism.

"The Complete Weight Reducer"

By: C. J. Gerling.

Published by Harvest House, New York, 1941. Price, \$3.00.

The book is a comprehensive attempt to present a guide for all those who believe themselves to be in need of weight readjustment. The author includes in his description of ways and means many of the most widely publicized systems, foods, drugs, mechanical devices, etc. It is hoped that the information given between the covers of this book will clear up for the weight-suffering man or woman many popular notions and pleasing misinformation. It is further expected that much of the highly profitable food-fad and weight-adjustment industry will appear to the reader in a saner and fairer light. The savings derived from a better understanding ought to be considerable.

"Clinical Immunology Biotherapy and Chemotherapy in the Diagnosis, Prevention and Treatment of Disease"

By: John A. Kolmer, M. S., M. D., Dr. P. H., Sc. D., LL. D., L. H. D., F. A. C. P., Professor of Medicine, Temple University School of Medicine; Director of the Research Institute of Cutaneous Medicine; and Louis Tuft, M. D., Assistant Professor of Medicine and Chief of Clinic of Allergy and Applied Immunology, Temple University School of Medicine.

Illustrated.

Published by W. B. Saunders Company, 1941, Philadelphia and London. Price, \$10.00.

The purpose of the book under review is to bring under one cover the accumulated knowledge of the past fifteen years on the subjects of immunology, biotherapy and chemotherapy as applied to human suffering caused by the 250 or so living agents of vegetable and animal origin. The first half, or Part I, deals with the general aspects of infection, immunity, biotherapy, and chemotherapy, while Part II is concerning itself with their

Continued on page 111

PROGRAM IN BRIEF
Maine Medical Association
Ninetieth Annual Session

POLAND SPRING HOUSE

Poland Spring, Maine

SUNDAY, MONDAY AND TUESDAY

June 21, 22, 23, 1942

SUNDAY, JUNE 21, 1942

4.30 P. M.

First Meeting of the House of Delegates.

7.00 P. M.

Dinner.

8.30 P. M.

Guest Speaker, Reverend George W. Shepherd,
Boston

Subject: The Battle for Freedom in China and
India.

The Reverend Mr. Shepherd has lived for more
than twenty years in China. For the past
few years, while in China, he has been per-
sonal economic advisor for Generalissimo
Chiang-Kai Shek.

MONDAY, JUNE 22, 1942

Morning Session

9.30 A. M.-12.00 M.

Conferences

I

TRAUMATIC SURGERY

Chairman: William V. Cox, M. D.,
Auburn

II

CLINICO-PATHOLOGICAL

Conducted by: Howard T. Karsner, M. D., Director
of the Institute of Pathology, Western Re-
serve University, Cleveland Ohio.

Chairman: Theodore E. Hardy, M. D.,
Waterville

Co-Chairman: Julius Gottlieb, M. D.,
Lewiston

III

OBSTETRICAL AND GYNECOLOGICAL

Chairman: Magnus Ridlon, M. D.,
Bangor

IV

OTO-LARYNGOLOGICAL-PEDIATRIC

Chairman: Pierre E. Provost, M. D.,
Augusta

Co-Chairman: Maurice E. Priest, M. D.,
Augusta

V

TUBERCULOSIS

Chairman: Edward A. Greco, M. D.,
Portland

Luncheon

12.30 P. M.

Tables will be reserved for reunions of alumni of
Boston University, Johns Hopkins, Bowdoin,
McGill, Vermont, Tufts, Yale and Harvard
Medical Schools, and members of the Tumor
Clinics.

Afternoon Session

2.00-4.45 P. M.

SCIENTIFIC SESSION

1. Introduction of Visiting Delegates.
2. Endometriosis; Its Etiology, Symptoms and
Treatment.
Joe Vincent Meigs, M. D., Boston
3. Pathology—Subject to be announced.
Howard T. Karsner, M. D., Professor of
Pathology, Western Reserve University,
Cleveland, Ohio
4. Observations on Reversible Heart Disease,
Merrill Sosman, M. D., Professor of
Roentgenology, Harvard Medical School,
Boston, Mass.

5.00 P. M.

Election of President-elect.

5.30 P. M.

Second Meeting of the House of Delegates.

Evening Session

7.00 P. M.

Dinner.

Presentation of Fifty-Year Medals by Presi-
dent P. L. B. Ebbett.

President's Reception.

Dancing.

OVER

TUESDAY, JUNE 23, 1942

Morning Session
9.30 A. M.-12.00 M.

Conferences

I

ANNUAL MEETING OF THE MAINE MEDICO-LEGAL
SOCIETYPresident: William Holt, M. D.,
Portland, presiding

II

SURGERY

Chairman: Isaac M. Webber, M. D.,
Portland

III

PUBLIC HEALTH

Chairman: Roscoe L. Mitchell, M. D.,
Augusta

IV

FRACTURES

Chairman: Allan Woodcock, M. D.,
Bangor

V

MEDICAL

Chairman: Blynn O. Goodrich, M. D.,
Waterville

Luncheon

12.30 P. M.

Tables will be reserved for Past Presidents and
County Secretaries.

Afternoon Session

2.00-5.00 P. M.

SCIENTIFIC SESSION

1. President's Address,

P. L. B. Ebbett, M. D., Houlton

2. Disability Valuations,

Speaker from Council of Industrial Health,
American Medical Association

3. Surgery of the Sympathetic System,

S. C. Harvey, M. D., Professor of Surgery,
Yale University, Surgeon-in-Chief, New
Haven Hospital

4. Differential Diagnosis of Obscure Cases,

Chester Keefer, M. D., Professor of Medi-
cine, Boston University School of Medicine,
Boston

5. Medical Aspects of Civilian Defense,

Allan Craig, M. D., State Medical Director
for Civilian Defense, Bangor

Evening Session

7.00 P. M.

Annual Dinner (Dress Informal).

Guest Speaker, Morris Fishbein, M. D., Editor,
The Journal of the American Medical Associ-
ation, Chicago

Subject: Medicine and the War.

Special Notices

*Annual Meeting Maine Medico-Legal
Society*The annual meeting of the Maine Medico-Legal
Society will be held Tuesday, June 23rd, 9.30 A. M.,
to 12.00 M., at the Poland Spring House, Poland
Spring, Maine.

PROGRAM

1. Business Meeting.
2. Discussion of Legal Angles of Medical Examiner System.
Introduced by Franz U. Burkett, Former
Attorney General, Portland.
Discussion by Attorney General Frank I.
Cowan; Chief of State Police, Henry P.
Weaver; County Attorney, Cumberland
County, Albert Knudson; County Attor-
ney, Franklin County, Benjamin Butler.
3. Medico-Legal Aspects of Coronary Occlusion.
Joseph E. Porter, M. D., Associate Patholo-
gist, Maine General Hospital, Portland.
4. Forensic Pathology.
Alan Moritz, M. D., Professor, Legal Medi-
cine, Harvard University.

WILLIAM HOLT, M. D.,
President.GEORGE L. PRATT, M. D.,
Secretary.*To the Ladies!*During the past few years the Ladies' Register
has shown an increase in attendance. For instance,
in 1940, 122 women registered, and in 1941, there
were 156 registered. This increase in attendance
would seem to indicate that a "good time was had
by all."This meeting needs each one of you who can
possibly attend to help carry out it's purpose of
being a social as well as an educational event.All of you know by having been there, or by
reputation, the beauties of Poland Spring. All of
you know the value of the contacts made at these
June meetings. We feel sure that all of you want
to be there and have an active part in the program
arranged for you, and in the Sunday, Monday, and
Tuesday evening programs which will be as inter-
esting to you as to your "doctors."Mrs. P. L. B. Ebbett, of Houlton, and Mrs. Carl
H. Stevens of Belfast, who will be in charge of
your entertainment are arranging a special pro-
gram. This program, to include a bridge party,
will be published in the June issue of the JOURNAL.We wish you could all be there, and request
those who can to register and receive a badge on
arrival.

**Convention Rates
1942 Annual Session**

**Poland Spring House, Poland Spring, Me.
June 21, 22, 23, 1942**

The following room rates, which include all meals, will prevail:

Single rooms without bath	\$6.00 per day
Double rooms without bath, per person	\$6.00 per day
Double room and single room with connecting bath, for 3 persons, per person	\$7.00 per day
Two double rooms with connecting bath for 4 persons, per person	\$7.00 per day
Double room with bath for 2 persons, per person	\$7.00 per day
Single room with bath, per person	\$8.00 per day

The charge for non-registered guests for meals will be as follows:

Breakfast	\$1.00
Luncheon	\$2.00
Dinner	\$2.50

Golf green fees will be \$1.00 per day. The tennis courts and Beach Club will be available without charge.

The Hotel Orchestra will be available four hours each day for dancing.

For reservations write the Poland Spring House, Poland Spring, Maine.

Make Your Reservations Early

From the Secretary's Office

To the Members of the Maine Medical Association:

We have been advised by Mr. Whitney, General Manager of the Poland Spring House, that they have planned an improvement program at both the Poland Spring House and Mansion House which they feel sure will contribute materially to the comfort and pleasure of Maine Medical Association members and guests attending the annual session in June.

Mr. Whitney has also informed us that commencing last season it was necessary to charge for all carbonated water dispensed due to the increased cost of bottling. *Poland Water is still served without charge.*

We call your attention to the one change that has been made in the convention rates; a reduction in the price of breakfast from \$1.50 to \$1.00.

FREDERICK R. CARTER, M. D.,
Secretary.

Book Reviews—Continued from page 168

practical importance and application in the diagnosis, prophylaxis and treatment of disease. No effort has been made to include detailed descriptions of the technic of serologic or purely laboratory methods. However, their general aspect and practical applications have received careful attention. The book is primarily prepared for the benefit of the clinically and practically active physician but will no doubt prove of considerable value for the teachers and students of the medical sciences.

"Body Mechanics in Health and Disease"

By: Joel E. Goldthwait, M. D., F. A. C. S., LL. D.;
Lloyd T. Brown, M. D., F. A. C. S.;
Loring T. Swain, M. D.; and
John G. Kuhns, M. D., F. A. C. S.

With a Chapter on the Heart and Circulation as Related to Body Mechanics.

By: William J. Kerr, M. D., F. A. C. P.

121 Illustrations.

Third Edition. Completely Revised and Reset.

Published by J. B. Lippincott Company, Philadelphia, London, Montreal, 1941. Price, \$5.00.

The earlier editions of this book placed special emphasis upon chronic diseases associated with faulty mechanics of the body; the present emphasizes the necessity of preventing as much as possible the development of faulty body mechanics. The authors claim to have found that most chronic diseases are associated with a wrong use of the body which must have begun in childhood or in early adult life. The purpose of this book is to place before the medical profession those factors which have been of the greatest help to the writers in their treatment of patients suffering from chronic diseases.

"Cardiac Clinics"

A Mayo Clinic Monograph

By: Fredrick A. Willius, B. S., M. D., M. S. in Med., Head of Section of Cardiology, Mayo Clinic, and Professor of Medicine, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester, Minn.

Illustrated.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$4.00.

"Cardiac Clinics" is an ordered republication of subject matter which previously appeared in the Proceedings of the Staff Meetings of the Mayo Clinic. The author was guided by the desire to present concise, practicable discussions dealing with the human heart and its functional variations, especially arranged for the busy general medical practitioner. He hopes that the volume will be both interesting and helpful to all to whom it is addressed.

"Immunity Against Animal Parasites"

By: James T. Culbertson, Assistant Professor of Bacteriology, College of Physicians and Surgeons, Columbia University.

Published by Columbia University Press, New York, 1941. Price, \$3.50.

The author hopes to have supplied a text of value to those who are beginners in the study of immunity to the parasitic forms, by acquainting them with the fundamental principles of the subject as now understood. The readers are assumed to be well trained in the two subjects of parasitology and immunology. The material is presented in a form considered most useful for the beginning student, the trained investigator, and the practicing physician or veterinarian. Personal concepts and theories are held at a minimum.

"Handbook of Communicable Diseases"

By: Franklin H. Topp, A. B., M. D., M. P. H., Director, Division of Communicable Diseases and Epidemiology, Herman Kiefer Hospital and Detroit Department of Health; Associate Professor of Preventive Medicine and Public Health, Wayne University, College of Medicine; Special Lecturer in Communicable Diseases and Epidemiology, University of Michigan; Major, Medical Reserve Corps, United States Army; and Collaborators.

With 73 Text Illustrations and 10 Color Plates.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$7.50.

The intention of the authors of this book was to create a text and handy reference book to be profitably employed by all persons whose professional duties require them to be in contact with communicable diseases and infestations and whose duty it is to prevent or reduce their disease-producing capacity. The diseases described have been classified according to their most common portal of entry. Though this is not the usual method of presentation, the authors hope that this form will prove to be more helpful to the student. However, the conventional method of disease unit study has been followed throughout the text, the individual's illness is clinically described in terms of onset, symptoms, course, distribution of lesions, complications, treatment, and preventive measures. There is a differential diagnostic appendix from the Herman Kiefer Hospital and a Glossary at the end of the volume.

"Microbes Which Help or Destroy Us"

By: Paul W. Allen, Ph. D., Professor of Bacteriology and Head of the Department, University of Tennessee; D. Frank Holtman, Ph. D., Associate Professor of Bacteriology, University of Tennessee; and Louise Allen McBee, M. S., formerly Assistant in Bacteriology, University of Tennessee.

With 102 Text Illustrations and 13 Color Plates.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$3.50.

Most people are driven on in their efforts to attain security for themselves and their dependents by fear. Torturing fears become potent stimuli to the mind of man. Its inventiveness creates mythical enemies against which they attempt to fortify and defend the self. Sooner or later, when fear subsides and reason returns, fictional knowledge is

slowly changing to factual knowledge, based on actual, verifiable experience, and the actual causes of man's suffering can be defined and studied, and their effectiveness reduced by the proper application of antagonistic measures. The book under review represents a mutual attempt of the authors and their friends and advisers from the fields of science and medicine to create for the benefit of the lay reader a scientifically correct and linguistically understandable textbook which informs him of the importance and necessity of possessing practically correct knowledge of the micro-organisms which forever try to undermine our health, happiness and well being. It shows how we can defend ourselves against the various powerful agencies and how we can be more successful in avoiding disease, hunger and exposure of the most varied kinds. Intelligent knowledge of the agencies, organisms and systems which tend to shorten our health, our life, our activity in our pursuit of happiness is necessary for the success of a dynamic culture.

"Chinese Lessons to Western Medicine"

A Contribution to Geographical Medicine from the Clinics of Peiping Union Medical College

By: I. Snapper, Professor and Head of the Department of Medicine, Peiping Union Medical College, Peiping, China.

With a Foreword by George R. Minot, Professor of Medicine, Harvard University.

132 Illustrations.

Published by the Interscience Publishers, Inc., New York, 1941. Price, \$5.50.

With the help of China Medical Board, Inc., and the Peiping Union Medical College the author has been placed in the enviable position to present to his fellow physicians of the Western Hemisphere what the physicians of the Eastern Hemisphere have learned that is new. In a sort of bird's eye review the author describes the various types of diseases which were treated at the Peiping Medical College Hospital and Clinic. He could definitely prove what has been suspected for the past five decades, namely, that there is a geography of disease, that is to say, that man living in specified territories and environments is likely to succumb to diseases prevalent in that territory and consequently must learn to fortify himself against them. This seems to be true especially of the infectious and parasitic disorders, disorders of the liver, the cardiovascular and renal systems, etc., all of which is very interesting to the practitioner of so-called Western Medicine.

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The Journal of the Maine Medical Association

Volume Thirty-three

Portland, Maine, June, 1942

No. 6

*Records:—The Problem of Every Hospital**

PEARL R. FISHER, R. N., Superintendent, Thayer Hospital, Waterville, Maine.

This title might be more aptly phrased "The Headache of Every Hospital." This ailment exists in some degree or another in all hospitals, although the admission of the malady varies according to the inherent frankness and perspicacity of the administrator. The cure or relief lies in the development of a record-conscious staff. The utilization of hospital records for teaching purposes by the staff has an amazing therapeutic effect.

Records are indispensable to the hospital and the doctor alike, but their real value depends entirely upon the manner in which they are written and utilized. Nothing can do more to improve the clinical work and raise the standard of the hospital than developing good clinical records. It has been said that the examination of the records of any hospital discloses its interest or lack of interest in the progress of Medical Science.

Dr. Haggard, in his book, "The Doctor in History," said the chief importance of the work of Hippocrates lies in the fact that he observed and recorded the symptoms of Disease. He began the accumulation of facts concerning diseases, upon which the knowledge of Modern Medicine exists. He wrote

down the symptoms and the courses of the illness in the cases he studied. Such records as how men behave when affected by disease are called clinical records. All the knowledge that physicians have gained of Disease since the time of Hippocrates has been acquired by following the principles he laid down,—careful observation of the sick. The importance of writing down the results of one's findings makes for greater accuracy in observing. Of the great physicians, none valued the worth of good clinical records more than Sir William Osler. He made the statement that the patient is the teacher, but unless observations are carefully recorded, little is learned by the physician, who should always be the student. Dr. Joseph Pratt, in speaking to a group of our doctors, said that it was a positive advantage not to have internes, if the absence of such assistance stimulated the physician to keep good notes on his cases. Unless, he said, a physician records his observations, increase in his clinical experience means little, because he simply accumulates impressions which lack accuracy, and the exact details of individual cases which are so important quickly fade from mind.

Much has been written about the impor-

* Presented at the annual meeting of the Maine Hospital Association, Lakewood, Maine, August 20, 1941.

tance of good records, and yet there are many physicians who do not realize the practical value of such records. Records should be such that, should any unforeseen contingency make it necessary for another physician to carry on the case, he will be able to do so intelligently and with complete information regarding the patient. A good record, in addition to all information pertaining to the admission of the patient, should give a clear, accurate, positive picture of the entire case from admission to discharge, noting everything that is done, and including the patient's response to various therapeutic measures, together with an adequate summary and prognosis. Progress notes are extremely important, especially when associated with unusual conditions, and should contain information as to the character of wounds, the removal of sutures and drains, treatments administered by the physician, or any complications. Accurate, complete records have a very important place in medical research. There should be some system for checking records to see that all laboratory, X-ray, pathological, and special reports have been inserted, and the record arranged in proper order and correctly signed before being filed away.

It is generally conceded that adequate facilities for the physician to record his observations make for better records. A conveniently located and properly equipped record room under the direction of a competent record clerk is, of course, highly desirable. If the record clerk is intelligent, personable, and tactful, this is a decided asset. It is too often felt that in providing these ideal facilities, this headache of hospital records should be relieved. Many times this leads to disappointment. We have all seen adequate equipment and competent personnel, with poor records, delinquent in preparation, inadequate descriptively, and useless scientifically. Perhaps the physician considers the record mere routine, a form of red tape, a necessary evil; or perhaps his inertia is caused by the lack of appreciation of the real teaching value of a good record.

Medical records should be written for their teaching value. Through such records the

patient receives better care, the physician increases his knowledge, and Medical Science as a whole is benefited. To accomplish this threefold purpose, the development of a record-conscious staff is necessary; not always easy, yet not always as difficult as it may seem. While the responsibility for writing good medical records is primarily the physician's, it is the responsibility of the hospital to develop this idea of utilizing the hospital record. Too frequently medical records are written and forgotten and put to no further use. They are not studied for the purpose of increasing the clinical knowledge and experience of the staff. Records must be used, and in such a way as to make their value unquestioned. It is generally conceded that a good record committee is essential in keeping records up to the recognized standard. Incidentally, the suggestion sometimes made that the most delinquent staff member be placed on such a committee for purposes of reformation does not work out in practice. The record Committee should be composed of keen, interested men, well versed in record procedure.

The laxity of some hospitals in not insisting upon records being written on time and kept always up to date naturally engenders a feeling on the part of the physician that it is a mere formality. Also, delinquent records are apt to lack accuracy.

Frequent, well-organized, interesting staff meetings, in which careful studies of selected cases from patients in the hospital receive honest evaluation with frank discussion, is bound to develop a more keen appreciation of the importance and necessity of writing good records. No physician can trust to his memory all the essential details pertaining to his patients. The source of material for the discussion of his cases must be obtained from complete, accurate, and well-written records. The staff program should include cases chosen for their teaching value. A diversified selection, apportioned among the staff, to give the doctors opportunity and experience in presenting cases will, over a period of time, develop a more interesting and instructive type of meeting. Here again the hospital can make it easier for the doctors to present their

cases interestingly and graphically by providing the proper physical equipment, such as blackboard, a viewing box for X-ray films, and a screen with reflectoscope for showing charts, etc. It has been stated that the greatest educational value of the medical record lies in the impossibility of evading errors. Errors are the best teachers when they are brought to light and the cause is sought. If the staff becomes interested in what Osler termed "observation, tabulation and recording," this is soon reflected in the quality of the records and the clinical work of the staff.

The staff meeting program is largely taken up with discussion of the more interesting cases, presenting problems of educational value. It is, of course, impossible to discuss every case. Obviously, pertinent phases of many cases meriting review are overlooked.

The staff audit, described by Dr. Thomas Ponton, is a most practical method of appraising the entire professional work of the hospital, and, in our own experience, has been a means of greatly improving the hospital records. This system, with some modification, can be adopted by almost any hospital. Once each week the completed records are carefully reviewed by some member of the staff designated as Auditor, together with the Chairman of the Staff and the members of the Record Committee. Each staff member acts as auditor for one month, in rotation. This allows each member to participate in the audit, and still lends continuity to the scheme. Cases are classified as to type, risk, and result. The essential point of the staff audit is that for each patient there must be an honest comparison of the result secured with that which might be reasonably expected. Records are very carefully reviewed for errors in diagnosis, treatment, judgment, and technique. The object is not to place the blame on any one person, but to find successes and failures of all kinds in order to bring about an improvement and to stimulate interest in the professional work in general. The form and content of the record is very carefully gone over and, should the record reveal any errors or omissions, a confidential note is given to the physician regarding the same and suggesting changes. This information is also

recorded on a Master Sheet, which is kept by the Record Clerk. It is her responsibility to see that the physician makes the necessary changes before the record is cross-indexed or filed. During the one and one-half years that we have employed this system, it has brought to light a wealth of informative, interesting material which could be used by the staff. Once a month, a consolidated report is made and presented to the doctors at staff meeting for discussion.

Of course the inauguration of some such system of audit is not an immediate answer to the problem of hospital records. Its greatest value is in developing a coöperative and scientific spirit on the part of the staff, who begin to see the real practical value of their own hospital records. In other words, these records are written for use, rather than mere filing. All this takes a little time. In our own case, this plan was received at first with considerable indifference by the staff as a whole, but through the enthusiastic efforts of a minority, the audit was started and has developed gradually into something that has exceeded our fondest expectations. In the first few months, certain significant, but hithertofore unrecognized deficiencies, were brought to light, obviously a matter of concern to the hospital and the staff. As time went on, other errors were discovered and corrected. The value of all this and the importance of the records became apparent to each staff member as he had the opportunity of serving as auditor. This plan enables the entire clinical work of the hospital to be reviewed by the individual staff member. This is bound to increase his own interest and develop an inquiring attitude, and results in a more coöperative spirit. The greatest difficulty with the record problem is overcome when the physician realizes, through his own experience, that his records are put to a practical use, that they are not insisted upon by the hospital simply to gain the approval of the American College of Surgeons. In our own experience, this has solved the problem of delinquent records. No records are filed away until they are completed and have gone through the audit. Naturally, no one wants his records reported as incomplete.

Continued on page 121

*Laceration of the Abdomen with Ectopia Viscera**

By N. BISSON, M. D., Waterville, Maine.

Extensive laceration of the abdomen with ectopia viscera presents a two-fold problem; the combatting of shock, always a factor, and the restoration of the abdominal contents, with the prevention or control of peritonitis. In the following case it was possible to accomplish these things simultaneously, largely through coöperation and teamwork. At the same time the role of chemotherapy in the prevention of peritoneal infection cannot be ignored.

F. N., male, age 36, was seen immediately upon admission to the Thayer Hospital, in profound shock from an extensive laceration of his abdominal wall. This had resulted from being struck by a board thrown loose from a circular saw. On removing his clothing most of his small intestines were found outside the abdomen. There was an irregular wound in the wall extending from just above the symphysis pubis almost to the left superior iliac spine and thence upward for about 8 inches.

Drs. T. E. Hardy and W. L. Gousse were called in immediate consultation and participated in the conduct of the case. It was felt that the best chance for recovery lay in proceeding forthwith to restore the abdominal contents and to simultaneously treat the shock. Ether was considered the anesthetic of choice.

The wound was gently irrigated with normal saline and considerable debris, consisting of pieces of wood, bark, pitch, gravel, and fecal matter was removed. A tear, 8 inches in length, was found in the omentum and inspection of the small intestines revealed 6 distinct perforations ranging from $\frac{1}{2}$ to 2 inches in length. After thoroughly cleansing the wound, all bleeding points were ligated and the perforations in the intestines closed with No. 00 chromic cat gut on an atraumatic needle. Powdered sulfanilamide was applied freely to the intestines before returning them to the abdominal cavity and was also dusted into the cavity.

The wound was closed except for 2 cigarette drains in the lower angle of the incision.

During this entire procedure shock was continuously treated under the supervision of Dr. Hardy. 500 cc. of 5% glucose in normal saline was given intravenously and a duodenal tube was inserted. The patient stood the operative procedure well and showed remarkably good recovery from his shock.

The patient was returned to bed with the duodenal tube in situ. A prophylactic dose of tetanus antitoxin was given, after previously skin testing and finding no reaction. For the first 6 hours it was repeatedly necessary to irrigate through the duodenal tube because of a large amount of solid food retained in his stomach. Intravenous glucose and saline were administered post-operatively. After 24 hours sulfathiazole was given through the duodenal tube, maintaining a blood concentration of 2.5 mm.%. The duodenal tube was removed on the 5th post-operative day.

The patient ran a slight temperature, never above 100.2 for almost 9 days, after which it remained normal. While he complained of some epigastric discomfort, there was no distension of his abdomen. Peritonitis did not develop and the drainage was entirely serous. The drains were removed on the 8th post-operative day and the incision healed by the 10th day.

On the 9th day the patient became nauseated and vomited considerable greenish fluid. The abdomen, while distended, appeared slightly full. Beginning intestinal obstruction was thought of and the duodenal tube was reinserted. 3 hours later he vomited again and expelled the tube. X-ray examination showed distension of the small bowel loops in the upper right portion of the abdomen. He responded well to enemata, however, and the vomiting ceased. From then on his convalescence was uneventful. He was discharged home on the 16th day.

* From the Thayer Hospital.



P. L. B. EBBETT

President Maine Medical Association, 1941-1942

The President's Page

To the Members of the Maine Medical Association:

As this will be my last message to you as President of your Association, I first want to express my appreciation of the assistance each and every member, I have called on, has given me.

I greatly appreciated the honor the office carried with it, and I have tried to the best of my ability to carry on for the good of the Association. I know my efforts have been faulty, but they were sincere.

Soon we will be meeting at Poland Spring to consider our program for the ensuing year, and as this promises to be a year of great problems for the Medical Profession, as well as for our Country at large, I feel all who possibly can should be present to discuss these problems and formulate methods of overcoming them. To me it seems that this is one of the most important meetings our Society has ever held, and I think you will all agree with me in saying that the problems which have been thrown on our profession by this War have never before been equalled. Let all of us who can, then, get together and find a solution.

The main problem in my opinion will be, with our depleted ranks, to care for our civilian population. Along with possible war casualties, have we given thought to epidemics, such as the flu of the world war, which may develop? Have we made adequate preparation for the care of such situations? This is only one of the many problems which confront us in the coming year.

Think of the conditions we may have to meet: Think of means of taking care of them and express your opinions at our meetings.

Our Scientific Committee, by untiring effort, has prepared an excellent program for our meeting which should prove valuable to all who attend. Let us show our appreciation of their work by attending.

I hope every delegate will be present to take part in all discussions, and by their votes, decide our policy for the coming year, and I hope every member who can will attend the House of Delegates' meetings, as well as the general business meetings, feel free to enter all discussions, and make clear their ideas on any and all questions. In other words, although, if you are not a delegate, you have no vote in the House of Delegates' meetings, your opinions are welcome and desired. Let us have no fifth column in the Maine Medical Association. Let us do our criticizing in the meetings.

I have enjoyed visiting the various Societies of the State. All have received me very graciously and I assure you I greatly appreciated your cordiality.

In closing, I again desire to ask your attendance at our June 21st to 23rd sessions, bearing in mind that although this meeting is being held at Poland Spring, a pleasure resort, it is not an outing, but a business meeting which has to do with medical problems, the welfare of our communities and the advancement of medical standards throughout our State and Nation.

Thanks to you all for your help in my endeavors and for your patience with my mistakes in trying to carry on as President of your Association.

P. L. B. EBBETT, M. D.,
President, Maine Medical Association.

Editorials

Concerning the Proposal to Tax Hospitals and Colleges

Since the foundation of our government by custom and law exemption from taxation has been provided for certain institutions. The Revenue Act in 1913 specifically through Section 101-(6) made legal provision whereby certain corporations, etc., organized and operated exclusively for religious, charitable, scientific, literary or educational purposes, in which no part of the net earnings inured to the benefit of any private shareholder or individual were exempt from taxation. All this is to be changed, if and when the recommendations of the Treasury Department should unfortunately become enacted and the proposed amendment made enforceable by law. To hold institutions conducted solely for charitable purposes subject to *any form* of taxation seems the last word in unfairness. It has been the plaintive cry of certain Federal bureaus that a large percentage of the population of this country is *without* adequate hospital facilities, a statement shown to be without foundation, yet in these times of admitted danger to our very lives and existence a proposal is made to impose a burden that would seriously impair, if not destroy, the ability of practically all of these institutions to carry on.

The almost unthinkable proposal is included in the amendment proposed to the Internal Revenue Code that *any* profit made by hospitals on paying patients will be a *business income* and the expenditures of the same

hospital for care of charity patients *will not be deductible in determining the net income on paying patients*, except to limit of 5% net income. It certainly is a fact that hospitals are running a business but it is most emphatically a type of business that a community lacking it is unfortunate indeed. With returns from endowment funds at a low level, with financial assistance by generous friends limited by conditions impossible to remedy for the duration of the war and with many a community institution fighting hard to render the service it knows to be a necessity, one can truly ask; what next? Probably a suggestion to tax the baby's bank.

It has well been said, "there is no need to elaborate further on the effect of this on the health and morale of the entire civilian population." One might even go further and entertain the perfectly legitimate conclusion that the author or authors of such a proposal have demonstrated their utter lack of appreciation of the services being rendered to this country, *now as never before*, by institutions they would seriously handicap or might even destroy.

It is the legitimate duty of each and every citizen to protest against limitation of exemption for religious, charitable and educational institutions. Hospitals and colleges are needed, not only to aid in winning the war, they are needed in maintaining our existence.

The Annual Meeting

Some twenty-five years have passed since the annual meeting of the Maine Medical Association was held with the nation at war. Many of our members are in the armed and other services, more are being called and imperative requirements indicate that further demands will be made and met. Those who

remain at their civilian jobs face a tremendous responsibility; the burden of added work may seriously tax the physical ability of many to which will be added a rapidly amounting increase in government financial demands in way of taxation. Few, if any, will drift with the tide and rest on their oars;

all must pull against the current of this savage and ruthless war which can well smash us on the rocks of defeat and bring to this country conditions of such gravity that no single mind can grasp their final implications.

As might be expected no little of our program will deal directly or indirectly with military medicine. Dr. Fishbein, who comes as our dinner speaker, will bring us facts concerning the obligations of medicine in the crisis of today. The State Director of the Procurement and Assignment Service, Dr. John G. Towne, will welcome the opportunity to clear any confusion in the minds of those who are in doubt on any or certain points. Through and by the House of Delegates the business commitments for the coming year will be determined and here again will come an added burden to those who will serve in official and appointed capacities.

At no other time does so favorable an opportunity present for ANY member to suggest anything which he feels will be of benefit to the association. It is not only an opportunity, it is a direct obligation. The status of every person in this country changed that hideous day at Pearl Harbor. To a marked degree that obtains with the profession of medicine individually and collectively. There

isn't a single member of the official family of our association but will welcome suggestions whereby we can progress. If any deference is felt about appearing before the House of Delegates any member has welcome access to any councilor, member of his County representation on the House of Delegates or committee member. Every president of this association for some years past has included in their messages a request for constructive criticism and suggestions. It can be said emphatically that these messages were made in the hope that responses would follow.

The program speaks for itself as to its value in our daily work. The announced conferences have provided a wide diversification of subjects for presentation and they also afford an opportunity for discussions that are somewhat impossible in the more formal and larger meetings. The last meeting held at Poland Spring was one of the most successful and enjoyable in the history of our association. By our individual and collective efforts we can duplicate that pleasant record and it is well to remember the statement of Dr. C. C. Weymouth, the Chairman of the Scientific Committee. "No one knows what next year will have in store, so let's make this a grand get-together."

Our Friends the Exhibitors

Challenged by the demands of the government with its system of war-time priorities, our friends the exhibitors again stand by us our first year of this all-out war as they always have in the past. While it is a fact they lessen the burden on the State Association treasury to conduct the annual meeting, they do even more. They bring to us a most valuable and instructive display of the "tools of our trade" when we can or should have more leisure to see and hear about them. They are entitled to more than a mere written expression of thanks; they should have our personal acknowledgment of our appreciation which can very nicely be shown by visiting the vari-

ous booths. Some of the friends who have always been with us find it impossible to do so this year. Like Old Mother Hubbard their cupboards are bare. Others, with us for the first time, should be given a most cordial welcome and made to feel that their expense and trouble in these troublesome times has been justified. What the forthcoming year or years may hold in store in matter of shortages, time and time alone will tell. This may be even obligatory with necessary medical apparatus and supplies of all kinds. However, being in the hands of our friends is no small blessing.

Records: The Problem of Every Hospital—Continued from page 115

Each member takes pride in having his records written on time and with progress notes up to date. Another noticeable improvement has been in the content of the record. They are criticized as to form, completeness of detail, logic and even English. The correction of papers in any English course is an accepted form of teaching. This works quite as well with hospital records.

To summarize:

The problem of records is quite universal with hospitals. The responsibility for records rests primarily with the physician. The physician is usually a practical person, busy, and not likely to be forced to do things which, to him, seem a mere formality. Too often the hospital record has been just that,—a routine something of little practical use. Little effort has been made to show the physician the practical value of records or to utilize them

for his own benefit. Providing adequate physical facilities, although essential, is not enough. Records must be used, not filed and forgotten. It is the responsibility of the hospital to develop the idea of utilizing hospital records. A great deal can be accomplished by using records for case teaching in the staff meetings. In our own experience, the staff audit has proven to be the best means of solving our record problem. It has made every staff member cognizant of the practical value of records, and has put the records to practical use by the staff. In addition, the staff has been able to accumulate data of scientific value. It has taken care of the problem of delinquency and has improved the content and form of the records. It has developed a real coöperative, constructive spirit. The cure of this malady, this headache of the hospital, lies in the development of a record-conscious staff.

*Laceration of the Abdomen with Ectopia Viscera—Continued from page 116**Comment*

A number of factors enter into the rather surprisingly good results achieved in this case. Undoubtedly the use of chemotherapeutic agents locally is of value in the prevention of peritonitis. Sulfanilamide would seem preferable for local use over the other sulpha drugs, because of its greater solubility. A proper blood concentration should be maintained through oral administration until the danger of infection is past. Of still greater importance, in my opinion, was the coöperation and team-work manifest in the

operating room. Shock was continuously treated while the surgical repair was carried out as expeditiously as possible. A favorable factor in this case was that because of the nature of the injury there was practically no work done inside the abdominal cavity, the repair being done on the contents extra-peritoneally.

Rapid but careful surgery with good teamwork is important in any emergency operation and will save many lives and avoid many complications. This demands the co-operation of the surgeon, his assistants, and the anesthetist.

Tuberculosis is a vanishing disease. Perhaps we are a little hypnotized by that fact. When this century began we know that tuberculosis claimed more than 200 victims annually from every 100,000 of our population; today, four short decades later, tuberculosis has been driven from top billing down to a shaky seventh. But these facts do not tell all of the story. Tuberculosis is still the leading cause of death in those of college

age. Tuberculosis is still as much of personal catastrophe for the individual who contracts it today as it ever was in the past. Tuberculosis has lost none of its ability to ruin a career, wreck family budgets, burden taxpayers, or bring suffering and disability to thousands of Americans, no one of whom deserves or needs to contract tuberculosis if everyone utilized fully what medical science knows and has to offer.—CHARLES E. LYGT, M. D.

County News and Notes

Cumberland

Portland Medical Club

The regular monthly meeting was held at the Eastland Hotel, April 7, 1942, at 8.15 P. M. In the absence of the President, the Vice President, J. C. Oram, M. D., presided. There were thirty members and four guests present.

B. B. Foster, M. D., presented a paper on the *Discussion of the Interpretation of Pre-Marital Blood Reports*. He stressed the part played by false positive serologic tests. O. R. Johnson, M. D., spoke of the variability of the reports of the serological blood tests. O. E. Haney, M. D., spoke of practical problems as encountered in office practice, and emphasized the importance of making the right decision at the right time. Leon Babalian, M. D., felt that two laboratory tests should be done and referred to the increase of syphilis in war periods. Others entering into the discussion were Drs. Mortimer Warren, George C. Poore, Edwin H. Gehring, Benjamin Zolov, and guests Drs. Roscoe Mitchell, Glenn Usher, and Arch Morrell of Augusta.

Resolutions on the death of William D. Anderson, M. D., were adopted by the Club.

It was announced that E. R. Blaisdell, M. D., and Langdon T. Thaxter, M. D., were to be the speakers for the May meeting with the subject, *Acute Low Substernal and High Epigastric Pain (Possible Errors in Differential Diagnosis)*.

Following the meeting light refreshments were enjoyed.

Respectfully submitted,

ALICE WHITTIER,
Secretary.

Kennebec

A meeting of the Kennebec County Medical Association was held at the Veterans' Administration, Togus, Maine, on Thursday, May 21, 1942.

Clinical Session at 5.00 P. M., which was presided over by L. Armand Guite, M. D., President:

1. Dendritic Keratitis—Eli Contract, M. D.
2. Septicemia—M. Z. Cooper, M. D.
3. Myasthenia Gravis—Joseph Glasser, M. D.
4. Carcinoma of Stomach with Subtotal Resection—William W. Hardman, M. D.
5. Subacute Bacterial Endocarditis — N. H. Badaines, M. D.

Dinner at 6.30 P. M., which was followed by a business meeting. Minutes of the last meeting were read and approved.

The speaker of the evening was Richard H. Overholt, M. D., who is associated with the Massa-

chusetts General Hospital. His subject was *Injuries and other Thoracic Problems*. Dr. Overholt's paper was very interesting and was amplified by lantern slides. A general discussion followed.

There were 36 members and guests present.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,
Secretary.

Penobscot

The Penobscot County Medical Association held its regular meeting on Tuesday, April 21, 1942, at the Bangor House, Bangor, Maine.

The subject for the evening was *Medical Aspects of War Services*.

P. L. B. Ebbett, M. D., President of the Maine Medical Association, was present and spoke to the group.

Allan Craig, M. D., of Bangor, Medical Director for the State of Maine, described the situation relative to hospital organization, casualty stations, and first aid services.

General John G. Towne of Waterville, coördinator of the Selective Service organization for Maine, spoke on the Selective Service; on the subject of Rehabilitation; and, at somewhat greater length, on the Procurement and Allotment of physicians for military and civil services.

An extremely interesting "question and discussion" period followed the speakers' program.

There were 59 present.

Respectfully submitted,

FORREST B. AMES, M. D.,
Secretary.

Somerset

Franklin-Kennebec

A joint meeting of the Somerset, Franklin and Kennebec County Medical Societies was held on Thursday, April 23, 1942, at the Elmwood Hotel, Waterville, Maine.

Dinner at 6.30 preceded the evening program which follows:

Meningococcus Meningitis, R. P. Laney, M. D., Somerset County.

Cerebellar Tumor in a Child of 12 Years, T. Denie Pratt, M. D., Kennebec County.

Ulcerative Colitis, George L. Pratt, M. D., Franklin County.

Guest speaker of the evening was Allan Craig, M. D., of Bangor, Chief of Emergency Medical Service for the State of Maine.

MAURICE E. LORD, M. D., Secretary,
Somerset County Medical Society.

HAVE YOU MADE YOUR RESERVATIONS FOR THE
ANNUAL MEETING?

Councilor Reports

Report of Councilor, First District

To the Officers and Members of the Maine Medical Association:

The following is the annual report of the Cumberland and York County Societies:

CUMBERLAND COUNTY

No meetings were held in the summer, but starting in October, the Society met each month except November and April. The programs for the meetings were very good and well diversified. At 5.00 P. M., of the meeting day, Dry Clinics were held at the Maine General Hospital. These gatherings mean a lot of work on the part of the committees. The only criticism I have to make is that there is not better attendance.

Active Membership	157
Honorary Membership	6
Service Members	15
New Members	11
Deceased	4

New Members—Henry S. Hebb, M. D., Bridgton; Joseph G. Ham, M. D., Portland; Arthur Woodman, M. D., Falmouth Foreside; Sidney R. Branson, M. D., South Windham; K. Alexander Laughlin, M. D., Portland; Albert C. Johnson, M. D., Portland; Eugene P. McMananey, M. D., Portland; Leo J. McDermott, M. D., Portland; William Monkhouse, M. D., Portland; Ralf Martin, M. D., Portland; James Patterson, M. D., South Portland.

Deceased—Herbert J. Patterson, M. D., Portland; Charles B. Sylvester, M. D., Portland; Bertram F. Dunn, M. D., Portland; William D. Anderson, M. D., Portland.

Officers—President, Roland B. Moore, M. D., Portland; Vice President, N. B. T. Barker, M. D., Yarmouth; Secretary-Treasurer, Eugene E. O'Donnell, M. D., Portland.

Board of Councillors — George W. Cummings, M. D., Portland; George Tibbetts, M. D., Portland; Luther Brown, M. D., Portland.

Legislative Committee—E. W. Gehring, M. D., Portland; F. A. Ferguson, M. D., Portland.

Committee on Public Relations—Harold V. Bickmore, M. D., Portland; Theodore E. Bramhall, M. D., Portland; Roderick L. Huntress, M. D., Portland.

Delegates to the Maine Medical Association — Thomas A. Foster, M. D., Portland; Frank A. Smith, M. D., Westbrook; DeForest Weeks, M. D., Portland; Elton R. Blaisdell, M. D., Portland; Philip H. McCrum, M. D., Portland; Clyde E. Richardson, M. D., Brunswick; Richard S. Hawkes, M. D., Portland.

Alternate Delegates—Edward A. Greco, M. D., Portland; L. L. Hills, M. D., Portland; Alvin Ottum, M. D., Portland; Francis Hanlon, M. D., Portland.

Meetings:

October 16, 1941—Eastland Hotel. Walter Tobie, M. D., Portland, Maine, was the speaker and his subject was "An Old Fashioned Medical School." This meeting was the largest attended of the year. Doctor Tobie very cleverly, with wit, humor, and pictures, depicted Bowdoin Medical School of the "Gay Nineties."

December 5, 1941 — Eastland Hotel. Captain R. P. Parsons of the United States Navy Medical

Corps presented a paper entitled "Some Problems in Naval Medicine."

January 16, 1942—Eastland Hotel. Duncan Reid, M. D., Boston, Mass., speaker. Subject, "Toxemia of Pregnancy." Charles Robie, M. D., discussed the "Pharmacology of Veratrum Viride."

February 27, 1942 — Eastland Hotel. Speaker, Chester Keefer, M. D., Boston, Massachusetts. Subject, "Treatment of Bacterial Meningitis."

March 27, 1942—Lafayette Hotel. Speaker, Gordon Morrison, M. D., Boston, Massachusetts. Subject, "Treatment of Fractures."

YORK COUNTY

Active Membership	50
Honorary Membership	2
Members in Service	4
New Members	4
Deceased Members	1

New Members — J. Robert Downing, M. D., Kennebunk; John Murphy, M. D., North Berwick; Robert D. Vachon, M. D., Sanford; Marion K. Moulton, M. D., West Newfield.

Deceased Member — Harris P. Illsley, M. D., Limington.

Officers — President, Carl E. Richards, M. D., Alfred; Vice President, Arthur J. Stimpson, M. D., Kennebunk; Secretary-Treasurer, Charles W. Kinghorn, Kittery.

Delegates to the Annual Meeting at Poland Spring — Edward M. Cook, M. D., York Harbor; W. L. Morse, M. D., Springvale; J. H. MacDonald, M. D., Kennebunk.

Alternates — Carl E. Richards, M. D., Alfred; Paul S. Hill, Jr., M. D., Saco; C. W. Kinghorn, M. D., Kittery.

Meetings were held quarterly:

Summer get-together was held at the summer home of Dr. Paul Hill at Biddeford Pool, on August 27, 1941. Dr. Paul served the confreres with one of his famous sea-weed cooked shore dinners—nuf ced. Large attendance, with golf, games, and cards. No regrets.

Fall meeting, October 22, 1941. Kennebunk Inn, Kennebunk. Speaker, Captain Robert R. Parsons, M. C., U. S. N. Subject, "Modern Concepts on Gonorrhoea."

Winter meeting, January 7, 1942. Normandie, Scarborough. Speaker, J. L. Pepper, M. D., Portland, Maine, District Health Officer. Subject, "Contagions and Infections."

Spring meeting, April 8, 1942. Hillcroft Inn, York Harbor. Speakers: Lt. Commander Eugene Drake, M. C., U. S. N. Subject, "Medicine." Rolf Luim, M. D., Portsmouth, N. H. Subject, "Surgery." David Dolloff, M. D., Biddeford. Subject, "Civilian Defense."

More interest is being taken in the County Meetings, with better attendance, discussions, and good fellowship. During the year, a minimum fee schedule was standardized throughout the County. This is operating successfully and is of great financial help, especially to the doctors in Country Practice.

Respectfully submitted,

STEPHEN A. COBB, M. D.,
Councilor, First District.

Report of Councilor, Second District

To the Officers and Members of the Maine Medical Society:

The following is the annual report of the Androscoggin, Franklin and Oxford County Medical Societies:

ANDROSCOGGIN COUNTY

The County Society has held eight regular meetings, starting with the September 18th meeting in 1941 and will hold one more meeting on the 23rd of May. Our programs have been varied and quite successfully presented. At the September meeting, H. E. MacMahon, M. D., Tufts Medical School, discussed the problems of tumors.

Dinner preceded the October 23rd meeting, following which Louis Wolfson, M. D., of Boston, presented a paper on plastic surgery, paying particular attention to the treatment of burns. His paper was accompanied by lantern slides demonstrating the results obtained.

Edward T. Whitney, M. D., of Boston, was guest speaker at the December 11th meeting and presented a most interesting paper concerning the treatment of varicose veins and hemorrhoids.

The first meeting of 1942 was held on January 29th and Frank Barton, M. D., surgeon from the Massachusetts Memorial Hospital and director of the blood bank, presented a paper on the management of the blood bank at the Massachusetts Memorial Hospital and showed moving pictures which brought out the various procedures carried out during the collection and processing of the blood. Election of officers was held as follows:

President, Camp Thomas, M. D.; Vice President, D. D. F. Russell, M. D.; Secretary-Treasurer, Charles Steele, M. D.; Delegate to Maine Medical Association for two years, M. S. F. Greene, M. D.; Alternate, A. W. Plummer, M. D.; Councilor to County Society, Romeo Belliveau, M. D.

On February 19, 1942, Charles Rammelkamp, M. D., Senior Resident at the Massachusetts Memorial Hospital, presented a paper concerning some of the more recent aspects of chemotherapy with special reference to the use of Gramicidin. The results of these treatments were summarized on lantern slides.

The County Society was most fortunate in that they received an invitation from the Twin Cities' Executive Club to attend their March 19th meeting at which time Morris Fishbein, M. D., Editor of the *J. A. M. A.* was their guest speaker. Many of the members attended the meeting and heard Doctor Fishbein speak of the problems of medicine and the changing social order. Since this meeting occurred on our regular meeting night, the society decided to consider this as the regular meeting for the month.

Donald Munro, M. D., of the Boston City Hospital, addressed the meeting held April 23rd and talked about the treatment of head injuries. He emphasized the importance of first treating surgical shock and the debridement of compound fractures of the skull. At this April meeting we considered the fee schedule concerning the medical care of State wards and State cases, as approved by the Council of the Maine Medical Association on October 16, 1941, and referred to the various county societies for action. It was moved by Dr. Webber and seconded by Dr. Higgins that the Androscoggin County Medical Society approve the fee schedule as recommended by the Council of the Maine Medical Association at their meeting on October 16, 1941, providing the following two changes were made; that the general practice office

call fee be raised from \$1.00 to \$1.50 and that the stipend for a similar office call for nose and throat situations be reduced from \$3.00 to \$1.50. The society voted unanimously in favor of the above motion.

At this same meeting, E. C. Higgins, M. D., of the Central Maine General Hospital Staff and R. Blinn Russell, M. D., of the St. Mary's Hospital Staff were appointed to the Medical Advisory Board of the Red Cross.

During the year, three men were elected to membership in the society, A. W. Mandelstam, M. D., Robert Frost, M. D., and Glidden Brooks, M. D. Three members have died, Joseph O. Marien, M. D., George B. O'Connell, M. D., and Romeo J. Morin, M. D.

The present roster includes 69 paid-up members and two members have been delinquent in their dues.

At the present time, we have five of our members in the service.

FRANKLIN COUNTY

Four meetings of the Franklin County Medical Society were held last year with a good attendance at each meeting. On August 24th, the Society held its annual outing at Clearwater Lake with 55 members and guests present and a shore dinner being served. The remaining three meetings were business meetings. Important changes in the fee schedule were made during the year—the raising of both office calls and house calls to two and three dollars respectively.

It was also voted that Verdeil Oberon White, M. D., of East Dixfield, a graduate of Harvard Medical School and licensed in 1892 be recommended to the Maine Medical Association for a fifty-year medal.

The officers elected at the annual meeting are as follows: President, James Reed, M. D., Farmington; Vice President, Harry Brinkman, M. D., Wilton; Secretary-Treasurer, Lorrimer Schmidt, M. D., Strong; Delegate to Maine Medical Association, George Pratt, M. D., Farmington; Alternate, James Reed, M. D., Farmington; Board of Censors, Maynard Colley, M. D., Wilton, 1942; C. C. Weymouth, M. D., Farmington, 1942; Frank Springer, M. D., Farmington, 1942.

OXFORD COUNTY

Two regular meetings and one special meeting were held the past year.

At the regular meeting, May 21, 1941, held at Bethel Inn, Joseph H. Pratt, M. D., of Boston, Mass., gave a very interesting paper on "Home Treatment of Pneumonia with Sulfathiazole" with a report of 125 cases.

At the special meeting held at Hotel Harris, September 24, 1941, the application of Homer C. Lawrence, M. D., Bethel, Maine, was received and referred to the Councilor.

At the annual meeting held at Bethel Inn, October 21, 1941, the following officers were elected:

President, Albert P. Royal, Jr., M. D., Rumford; Vice President, Johnson L. Bean, M. D., Norway; Secretary-Treasurer, J. S. Sturtevant, M. D., Dixfield.

Auxiliary Committee on Legislation — D. M. Stewart, M. D., South Paris.

Councillors—H. M. Howard, M. D., Rumford; L. M. Corliss, M. D., West Paris; R. R. Tibbetts, M. D., Bethel.

Delegates to Maine Medical Association—R. E. Hubbard, M. D., Waterford; D. E. Elsemore, M. D., Dixfield.

Alternates—Walter G. Dixon, M. D., Norway; J. A. MacDougall, M. D., Rumford.

Homer C. Lawrence, M. D., Bethel, Maine, was elected to membership.

Bentley Colcock, M. D., from the Lahey Clinic, Boston, Mass., gave an excellent lecture, his subject being "Problems in Gynecology."

Two honorary members.

Thirty-seven regular members, whose dues were all paid before April 1st. That gave the society a 100% standing for payment of dues.

EUGENE M. McCARTY, M. D.,
Councilor, Second District.

Report of Councilor, Third District

To the Officers and Members of the Maine Medical Association:

The combined Lincoln-Sagadahoc County Society has completed its second year of existence. The members from the eastern county have contributed a valuable infusion effect. Four meetings have been held with out-of-state speakers the rule. One member, A. A. Stott, M. D., of Bath, is in the Naval Medical Service with rank of Lieutenant Commander. The excellent local hospital at Damariscotta has enjoyed a year of activity. The hospital at Bath is overtaxed for capacity and will shortly be considerably enlarged. The members of the Society will consequently be offered new clinical opportunities. It is hoped that increased enthusiasm for more frequent medical meetings will be fostered in order to stimulate interchange of clinical observations and experiences.

The Knox County Society with twenty-eight active members has enjoyed a satisfactory year with average attendance of fourteen at nine meetings. Death has deprived the Society of two valued members in the persons of F. B. Adams, M. D., and William Ellingwood, M. D., the latter of whom was particularly active locally and in the State Society. Two members, Howard Apollonio, M. D., and John Kazutow, M. D., are serving with the armed forces, the former in the Navy, the latter in the Army. Four members have been lost by transfer to the newly formed Lincoln-Sagadahoc Society. The meetings have been stimulating, usually associated with an afternoon clinic, deserving larger average attendance than that reported above. Three members have enjoyed post-graduate study this year.

Respectfully submitted,

C. HAROLD JAMESON, M. D.,
Councilor, Third District.

Report of Councilor, Fourth District

Your councilor for the Fourth District wishes to submit the following report:

WALDO COUNTY MEDICAL SOCIETY

They have held six medical meetings during the last year which would seem to be very good, especially for a small society.

There have not been any new members taken in.

There have been no men taken into the service of U. S. A.

SOMERSET COUNTY MEDICAL SOCIETY

They have held two independent medical meetings and one joint meeting. It seems that the larger proportion of the men are connected with

the Memorial Hospital of Skowhegan, and thus have given more attention to the Staff meetings of the hospital.

There have been no new members taken in.

There have been no men taken into the service of the U. S. A. as yet, although I understand there are several going in shortly.

KENNEBEC COUNTY MEDICAL SOCIETY

There have been eight meetings of this society.

Five new members were taken into the society and ten men gone into the service of the U. S. A.

We believe that the record of the fourth district has been good, but would suggest that some of the staff meetings of the hospital at Skowhegan be given over to meetings of the Somerset County Medical Society.

JOHN O. PIPER, M. D.,
Councilor, Fourth District.

Report of Councilor, Fifth District

To the Officers and Members of the Maine Medical Association:

The Hancock County Medical Society has held a total of eight meetings and one summer clinic since June 1st of last year. The attendance this year has been the best that they have enjoyed for the past eight years. Out of a total membership of 21 they can now expect from eleven to seventeen to be present at each meeting. At the annual meeting in December the society voted to hold meetings every month until the present emergency is over. As well as carrying on their regular society programmes, they have made these meetings a clearing house for Civilian Defense problems (of a medical nature) and a planning board for their defense programme in that county. Early in January the old Hancock County Dental Society became rejuvenated, under the impetus of the present emergency, and since that time they have been holding their meetings conjointly with them. The whole thing has worked out well, and there is more coöperation between the medical and dental professions there than there has ever been before.

Last December they found their treasury with a considerable balance. They used some of that money to buy four complete plasma transfusion outfits as a beginning in the establishment of a plasma bank. Two are now located in Ellsworth and the other two in Bar Harbor, but available anywhere in the county in case of need.

It has been a most successful year so far as the society is concerned.

The Washington County Medical Society during the past year has held four meetings, one each at Calais, Robbinston, Machias, and Eastport. The meetings at Calais and Robbinston were in conjunction with the St. Croix Medical Society which includes members of the New Brunswick Medical Society and were largely attended and addressed each time by physicians from St. John, N. B.

The excellence of the speakers selected to address us was shown by the attendance which has averaged better than 60% of our total membership.

Three new members were added during the year.

Respectfully submitted,

OSCAR F. LARSON, M. D.,
Councilor, Fifth District.

Report of Councilor, Sixth District

It is indeed a pleasure to report the healthy condition of the Sixth Councilor District.

The Penobscot County Medical Association has a membership of 92. Practically all who are eligible for membership in the Association are members. Dues were reported as 100% paid before April 1st. They held eight meetings this last year with an average attendance of 46, better than 50% attendance at meetings. The following seven members were in the service on May 1st:

Captain Herbert T. Clough, Portland, Maine.

Major Lawrence M. Cutler, Army.

Captain I. Francis Gregory, Bangor, Maine.

Lieutenant Commander Havilah E. Hinman, Navy.

Major Harold E. Pressey, Army.

Lieutenant Benjamin L. Shapero, Army.

Captain Max E. Witte, Army.

It is thus seen that about 8% of the members of the Penobscot County Medical Association are now in the service.

The Aroostook County Association has only two meetings a year. Its membership consists of 39 paid-up members. Two members in service and three honorary members. Membership was 100% paid up before April 1st. The average attendance at meetings is 30, which gives them an average attendance at meetings of 68%. When we consider the distances some must travel in Aroostook County to attend a meeting, I think we must congratulate the Aroostook County Medical Association on such an excellent record. There are, however, eight doctors in Aroostook County who are eligible for membership who do not belong to the Association. This probably is due to the distances which make it nearly impossible for some to attend meetings. The two members in service are George Ebbett, M. D., of Houlton, and Frank Blossom, M. D., of Caribou. It is thus seen that about 4% of the members of the Aroostook County Medical Association are now in the service.

The Piscataquis County Association has a total membership of only 18. Two are honorary members but they have chosen to pay dues in the County Association. Average attendance at meetings is better than 80%. If guests are included at its meetings its average attendance is considerably better than 100%. Four regular meetings are held each year and one special meeting has been held for several years. Several members of the Piscataquis County Association are usually present at the Penobscot County Medical meetings, and at the meeting of the American College of Surgeons in Portland the last of March six members from Piscataquis County were present (33⅓%). There is but one member in the service—W. B. S. Thomas, M. D., of Dover-Foxcroft, who is now a Captain in the U. S. Army. This, however, gives Piscataquis County a little better than 5% of its membership in the service.

Respectfully submitted,

N. H. NICKERSON, M. D.,
Councilor, Sixth District.

Committee Reports

Standing Committees

Public Relations Committee

RADIO AND PRESS:

Taking the problems of the medical profession or the hospitals to the radio, the press, or the rostrum seems to offer many complications and no solutions. With that in mind this committee has taken no action and made no recommendations. There is danger that the public will misinterpret our motives; there is certainty that it will misinterpret our message. The line between informative lectures or articles and advertising is yet so indistinct and artful in both press and radio offerings as to make both those avenues common and confusing.

The contributions to radio and magazines during the current year, on the sulfa drugs alone, have been so charged with misinformation that no scientific body can trust them as avenues for public instruction.

It is felt that problems relating to immunization of school children and kindred propositions should be the concern of the legally constituted health authorities.

Our most effective public service remains, as of old, prompt, skilful, courteous, faithful attention to those who are in physical or mental distress.

LEGISLATION:

It is recommended that no State legislation be sponsored by this Association during this legislative year.

It is recommended that a protest, of such a text and extent as may be approved by the house of delegates, be made to our national senators and representatives against the passage of a bill to subject all Hospitals, Schools, Colleges and other endowed institutions to the provisions of the National Income Tax. Such a bill has been proposed by the Treasury Department.

THE WAR EFFORT:

It is felt that the medical profession may be collectively and individually entrusted with the duties which disaster may bring.

Signed:

R. BLISS, M. D., *Chairman*,
HENRY C. KNOWLTON, M. D.,
FREDERICK T. HILL, M. D.,
C. W. KINGHORN, M. D.

Cancer Committee

To the Officers and Members of the Maine Medical Association:

During the legislative session of 1941, "an act to promote cancer control" was passed. The program is now being carried out. This program was described in an article by Dr. Kobes and myself which appeared in the MAINE MEDICAL JOURNAL for April, 1942. A recapitulation seems unnecessary.

I wish to call the attention of the president and the council of the Maine Medical Association to certain recommendations made in the report of 1941. I trust that they will give this matter their consideration and take such action as they deem to be advisable.

The present Cancer Committee consists of six members, including the chairman. They are:

Dr. Edward H. Risley of Waterville
 Dr. Magnus F. Ridlon of Bangor
 Dr. Bertrand A. Beliveau of Lewiston
 Dr. M. Tieche Shelton of Augusta
 Dr. William Holt of Portland

In so far as I know, the committees previously appointed consisted of five members only.

It seems to me that five members are sufficient, and as noted in last year's report, the terms of office should be staggered so that each member would have a continuous experience with sufficiently frequent replacements.

Membership in the committee should include those who are associated with: (1) Tumor clinics, (2) The Women's Field Army, (3) The Maine Hospital Association. There should be included at least one to represent the Medical Association at large, preferably a surgeon.

This committee serves as an advisory and consulting board to Dr. Kobes, who is the executive officer of the state program.

Implementation of the program, as far as actual care and treatment of cancer is concerned, is centered in the hospitals. It is, therefore, imperative to have close coöperation and understanding with and through hospital administrators.

In selecting what may be called members at large, geographical representation should be considered as well as representation based on centers where of necessity complete facilities for diagnosis and treatment of cancer are now available.

MORTIMER WARREN, M. D.,
Chairman, Cancer Committee.

Special Committees

Committee to Investigate Collection Agencies

From a financial standpoint, the collection problem is probably one of the most important matters which confronts the medical profession today. The doctor, in too many cases, is expected to make a professional call, send a number of bills, and then collect his money personally or employ a collection agency to do it for him. This seems to be the present day technique. To collect personally is impractical, and to use a collection agency, too often, is unsatisfactory. In this report I shall endeavor to present some of the unfair practices used by various collection agencies.

There are various kinds of collection agencies employing many different methods. The first broad classification would be the so-called "COLLECTION CONTRACT AGENCIES." It is my belief, after some years of observation, that the Doctor should beware of any company demanding a signed contract.

CONTRACTS:

I have read a great many Collection Contracts, and in nearly every instance there has been a "joker" incorporated. Considering the contract of one large concern, the "joker" is as follows: "The undersigned further assigns lists of accounts, instructs and authorizes the company to investigate, negotiate, settle, adjust and collect, at the terms set forth in this contract, any of said accounts that do not furnish acceptable security, and to act as attorney in fact with general powers to endorse for deposit and collection, commercial paper received from any account." One may readily understand that this constitutes a very broad assignment and gives discretionary powers over the client's accounts to a third party.

I have before me one contract which states, "As evidence of good faith, the undersigned client is now paying to the ——— Company the sum of \$15.00, receipt of which is hereby acknowledged, and agrees to pay the balance of the service fee in the sum of \$15.00 upon demand, or it may be retained out of first collections listed with ——— Company."

You may see from the above that the sales representative receives the \$15.00. The contract further states, "Pay the sales representative \$15.00—NO MORE." This company has special commission rates which actually figure 50 per cent of claims.

ACCOUNT PURCHASE PLAN:

This particular company's salesman first captures your attention by stating that he has come to "purchase" your accounts. You are, of course, interested. He offers a plan whereby 80 per cent of the undisputed amount of a claim less than three months overdue will be paid; 70 per cent of each claim less than nine months overdue and 50 per cent of all other claims. The first "joker" in this plan is a very broad general assignment clause. The second "joker" states that the purchase plan will operate, or the claims be returned in ninety days. You may readily see that the Company simply "skims the cream" off the accounts in their hands during this 90 days. For the reader's interest I would say that I, personally, had had one such company investigated by a responsible financial man, and the company in question had less than \$200.00 in its bank account in its home town. "Enuf sed" relative to this particular type of contract.

ADVANCE PAYMENT, YEARLY SERVICE CONTRACT:

This type of contract operates throughout the State of Maine. The concern sells a service contract with a number of clauses, one of which is as follows: "Accounts will be collected without commission or any other expense." The contract sells for a yearly sum, payable in advance, the sum ranging from \$18.00 to \$60.00 per year. The amount charged depends upon the number of accounts which the company expects will be turned over to it.

The above plan, on the face of it, is impractical since the company could be literally swamped with accounts, and in most cases, it cannot collect for the client much more than the amount paid for the yearly fee because the company pays its

sales representatives 50 per cent of the fee, which leaves very little for servicing accounts.

COMMISSION CONTRACTS:

We may consider this a rather "tricky" contract whereby the creditor agrees to pay one-third or 33½ per cent of each claim collected, but in case the company collects any of these claims on the installment plan, then it is to retain 50 per cent. Over 90 per cent of all claims given out for collection are paid on the installment plan, so this is simply a clever manner by which the company extracts 50 per cent.

LETTER FEES:

There are collection agencies which operate on a "letter fee" basis, whereby the client agrees to pay 50 cents per letter. In every case brought to my attention, the "letter fee" amounted to more than the amount collected.

WITHDRAWN CLAIMS:

Most of these contracts have a clause whereby the company charges 50 per cent of all claims withdrawn or cancelled during the process of collection. If the company is dishonest, it can simply hold up your funds and reports until such time as you lose patience and demand the return of your accounts. They have been known to then charge 50 per cent of the total list, which would leave the doctor owing them a considerable sum of money, and they would retain all they had collected and, possibly, sue for any balance due them.

PERSONAL CALLS:

I must refer briefly to the salesman who states that he will make "personal" calls on all debtors. In my opinion, no organization or individual handling doctors' claims can make personal collection calls on *all* debtors. It is impossible for one to do so. If the company or individual does enough business to make a living, they cannot possibly make enough collection calls to properly handle the accounts. They, of necessity, must simply collect the easy ones, and return the slow or difficult accounts, which, normally, would pay 50 cents or one dollar per week. I, personally, believe that "personal call collectors" are very unsatisfactory.

In my thirty years of practice I have found very few collection agencies which have proven satisfactory and have given good results. One company gives me monthly settlements with a meticulous record of collections made, and I have never had any unhappy sequelae. I also know of only one lawyer who has been active and efficient in this work. Undoubtedly, there are others, but I just didn't meet up with them.

In conclusion, I would ask every doctor to consider this advice and warning. "DON'T send your accounts out of the State, for the following reasons:

First—You would not give a stranger a sum of money, why give one your valuable accounts?

Second—In most cases you know nothing of the financial responsibility of the company in question.

Third—It will be very difficult and expensive to try to prosecute any agency in another State, for embezzlement, if such occurred.

Fourth—There are reputable and financially responsible Agencies in this State which can handle your accounts.

Fifth—Choose your Collection Agency as you choose your Bank, through its financial responsibility, reputation and years of standing."

Watch your step! Ask! Investigate first!

ADAM P. LEIGHTON, M. D.,
Committee.

Committee on Graduate Education

To the Officers and Members of the Maine Medical Association:

The Committee on Graduate Education submits the following report for the year 1941-42:

The program of Graduate Medical Education throughout the country has been seriously affected by the National Emergency. This became manifest during the months preceding the Declaration of War, when it was obvious that we were entering a period calling for increased sacrifices and the acceptance of lowered standards in many ways. This has meant the giving up or curtailing of many postgraduate assemblies and a drastic reduction in formal postgraduate courses. There is a very subtle danger that we may begin accepting lowered standards in many ways which should not be necessary. The complete abandonment of the Graduate Education program would be most detrimental to Medicine.

It has been customary to use the terms Graduate Education and Continuation Education interchangeably, as referring to one and the same thing. Actually there has been a difference. Graduate Education has applied rather to the formal postgraduate courses and the Assemblies held under the auspices of the several State Medical Societies. Continuation Education, on the other hand, might better refer to the more or less informal teaching programs carried on at regular intervals through the medium of the County Society and the Hospital Staff meetings. If this differentiation be accepted we may forego, for the Duration, the formal programs of Graduate Education; and, by concentrating upon, and further developing, a program of Continuation Education, help maintain a high standard of professional service.

For a number of years the Bingham Associates and the Commonwealth Fund have provided Fellowships for postgraduate courses for members of the Maine Medical Association. This has enabled us to meet the problem of Graduate Education for the rural practitioner in a way which otherwise would have been difficult of solution. But with the eventual Calling to the Colors of most of our younger physicians, and the consequent added responsibility of those left at home for the care of the civilian population, an abandonment of this plan is inevitable. Last year 51 Maine physicians took courses through the Bingham Associates and four through the Commonwealth Fund, a reduction of approximately 33%. After this fall it is extremely doubtful if further Fellowships will be available.

Your committee has felt for some time that Continuation Education, if properly developed, could be productive of the greatest good to the greatest number. A previous survey had indicated that a majority of our physicians regularly attended hospital staff meetings. We felt that these hospital meetings together with the County Society meetings were the most fertile field for the development of the Continuation program.

The County meetings have been greatly improved. Practically all of the County Societies now

conduct programs of good teaching value, although some county societies hold too few meetings and at irregular intervals. Monthly meetings on stated dates with programs prepared well in advance are highly desirable.

Realizing the opportunity for developing Continuation Education through the hospital staff meeting, an effort has been made to evaluate the character of the staff meetings of our hospitals. Last year a survey of the hospitals of the State indicated that 22 of these were endeavoring to furnish programs of teaching value. Twenty-four hospitals were holding monthly meetings, except for July and August, while one hospital held bi-monthly, and one, weekly meetings. This year a questionnaire was sent to every hospital having an organized staff. Replies were received from 19 as follows: Webber Hospital, Biddeford; Goodall Hospital, Sanford; Children's Hospital and State Street Hospital, Portland; Rumford Hospital, Rumford; Central Maine, St. Marie's, Lewiston; Franklin Hospital, Farmington; Augusta Hospital, Augusta; Camden Hospital, Camden; Knox Hospital, Rockland; St. Andrew's Hospital, Boothbay Harbor; Cary Hospital, Caribou; Waldo Hospital, Belfast; Mt. Desert Hospital, Bar Harbor; Eastern Maine Hospital, Bangor; Dean Hospital, Greenville; Sisters and Thayer Hospitals, Waterville.

While it is regretted that so many hospitals ignored the questionnaire, it is felt that those returned gave valuable information. These were subjected to a more critical study, based upon impartial personal observations insofar as possible. This indicated that the teaching program was good in 14, fair in 3 and poor in 2. The attendance was good in 11, fair in 6 and poor in 2. Three hospitals had a good percentage of staff members attending national meetings and taking postgraduate work. Six hospitals rated fair in this respect and 10 poor. It is encouraging to note that several hospitals, hithertofore doing little by way of a teaching program, are now earnestly striving to improve in this respect. Two hospitals,

because of their size and location, deserve especial mention, St. Andrew's in Boothbay Harbor and Dean in Greenville.

RECOMMENDATIONS:

The committee recommends that all County Societies hold monthly meetings on regular stated dates with carefully selected programs of teaching value. The committee is ready to assist County Officers in providing such programs.

The committee recommends the adoption of the teaching type of hospital staff meeting, based upon studies of hospital cases. It urges more frequent meetings with carefully prepared programs.

With the necessary curtailment of the Graduate Program, Continuation Education in the County Society and in the staff meeting assumes a greater importance and must be further developed if we are to maintain high standards of medical service.

JAMES CARSWELL, JR., M. D.,
THOMAS A. FOSTER, M. D.,
JULIUS GOTTLIEB, M. D.,
EUGENE E. HOLT, JR., M. D.,
FRANK H. JACKSON, M. D.,
LEROY H. SMITH, M. D.,
FREDERICK T. HILL, M. D., *Chairman.*

Committee to Survey Hospital and Medical Care

Pressure is being renewed in Washington for compulsory health insurance. Your attention is called to the proposals of Altemyer and Falk of the Social Security Board.

Your committee believes that the present emergency is not the time for the Medical Profession to relax its vigilance. A detailed report of developments in prepaid medical care is in preparation for presentation to the House of Delegates at the Annual June Meeting.

S. J. BEACH, M. D.,
Chairman.

In Memoriam

Members deceased since May 31, 1941

Adams, Frederick B.,	Rockland
Anderson, William D.,	Portland
Cox, James F.,	Bangor
Dunn, Bertrand F.,	Portland
Ellingwood, William A.,	Rockland
Hagerthy, Albert B.,	Ashland
Hendee, Walter W.,	Vassalboro
Hutchins, Guy H.,	Auburn
Ilsley, Harris P.,	Limington
MacDougal, William A.,	Westfield
Marien, Joseph O.,	Lewiston
Merrill, Earl S.,	Bangor
Morin, Romeo J.,	Lewiston
O'Connell, George B.,	Lewiston
Sylvester, Charles B.,	Portland
Tozier, Frank L.,	Fairfield

Report of the Secretary-Treasurer

Secretary's Report

To the Members of the Maine Medical Association:

As your Secretary I am pleased to submit the following report.

There are 741 members in the Association: 667 active, 47 in Military Service, and 27 honorary. Thirty-nine members have been added to our roster during the past year, and nine have been reinstated to membership. We have lost fifteen members by death. Thirteen have been suspended for non-payment of dues in accordance with our By-Laws, Chapter VIII, Section I. One member has retired and resigned from membership, six have moved out of the State, and one whose license has been revoked has been dropped from our roster.

100% payment of dues has been received from the following County Societies: Aroostook, Franklin, Hancock, Knox, Lincoln-Sagadahoc, Oxford, Penobscot, Piscataquis, Waldo, and Washington. I wish to express my appreciation to the members of these Societies for their prompt payment of dues, which not only helps their County Secretary but facilitates the work of the State Association.

The 1941 clinical session held at Portland, Thursday and Friday, October 16th and 17th, has gone down on our records as a complete success. A total of 188 members registered during the two-day session and attended clinical programs at the Maine General Hospital, Maine Eye and Ear Infirmary, Queen's Hospital, and State Street Hospital. Walter E. Tobie, M.D., of Portland, spoke on *An Old-Fashioned Medical School* at the dinner meeting Thursday evening. Over 175 members and guests attended this meeting and enjoyed Doctor Tobie's excellent portrayal of the Bowdoin Medical School of 1897-99, and the photographs of classrooms and students which followed. Guest speaker, C. Guy Lane, M.D., of Boston, spoke on *Occupational Dermatitis*, at the Maine General Hospital on Friday afternoon, following which the meeting was adjourned.

The 90th annual session will be held at the Poland Spring House, Poland Spring, Maine, June 21st, 22nd, and 23rd. The program, to be found elsewhere in this issue, has been arranged by the Scientific Committee, of which Currier C. Weymouth, M.D., of Farmington, is Chairman. I am not going to elaborate on the excellence of this program, which speaks so well for itself.

The Council report for the year will be presented by the Chairman, Stephen A. Cobb, M.D., of Sanford, at the first Meeting of the House of Delegates on Sunday, June 21st, at 4.30 P. M. Election of the President-elect will take place on Monday, June 22nd, at 5.00 P. M., followed by the Second Meeting of the House of Delegates at 5.30. All members are invited and urged to attend the meeting of the House of Delegates.

The Association's Fifty-Year Medals will be presented at the dinner Monday evening to: Clayton H. Bayard, James P. Blake, Luther G. Bunker, Ralph H. Marsh, Edward F. Robinson, Owen Smith, Eugene L. Stevens, Frederick E. Wheat, and Verdeil O. White. The Association is proud to have these members still in the ranks, and is privileged to present them with this medal, a symbol of the high regard in which we hold them.

The Commercial Exhibits are listed in the Program Section of this issue, each with a descriptive paragraph explanatory of their exhibit. Look them over and you will find many old friends and a few new. Make a resolve right now to visit each exhibit and show your appreciation for the loyalty

these firms are showing in being with us this year.

Our President and Editor have both stressed the importance of this year's meeting. The Scientific Committee have spent much time and effort in arranging the program, which promises much of value to all of us in these critical times. I can only add that I hope you will all make a special effort to attend some or all of the sessions.

In closing, I wish to express my appreciation to the County Secretaries, Councilors, and other Officers of the Association for their coöperation during the past year. Also to the members who have helped to make this year a real success.

Respectfully submitted,
FREDERICK R. CARTER, M. D.,
Secretary.

May 31, 1942.

Treasurer's Report

To the Members of the Maine Medical Association:

As your Treasurer I am pleased to submit the following report.

The books of the Association and JOURNAL were closed and audited as of May 31, 1942, by Jordan and Jordan, Accountants and Auditors, who have "found the same complete and correct in all details of record." To conserve space, we are printing only a portion of the Auditor's Report, which follows. A copy of the complete report, which contains, in addition to the following, statements of Capital Account, Trust Investments and Funds, and Securities and Bonds, has been sent to each member of the Financial Advisory Committee and is on file in the Portland office, where it is available to any member of the Association.

Respectfully submitted,
FREDERICK R. CARTER, M. D.,
Treasurer.

May 31, 1942.

(From the Statement drawn up by Jordan & Jordan, Accountants and Auditors, to "show the true financial position of the Association May 31, 1942.")

BALANCE SHEET, MAY 31, 1942

ASSETS	
Cash in Banks	\$14,921.73
Accounts Receivable — Sundry	375.00
Dues Receivable	120.00
Advertising Receivable	322.19
Securities	7,005.00
Furnishings and Equipment	1,092.59
Impounded Cash	1,504.05
Annual Meeting Expense — De- ferred	1.20
	<hr/>
	\$25,341.76
Trust Fund Investments	2,238.93
	<hr/>
Total Assets	\$27,580.69
	<hr/>
LIABILITIES, CAPITAL AND TRUST FUNDS	
1942 Exhibit Space Deferred\$	595.50
Capital Account	24,746.26
	<hr/>
	\$25,341.76
Trust Funds	2,238.93
	<hr/>
Total Liabilities, Capital and Trust Funds	\$27,580.69
	<hr/>

Continued on page 140

Program

90th ANNUAL SESSION MAINE MEDICAL ASSOCIATION

JUNE 21, 22, 23, 1942

POLAND SPRING HOUSE

POLAND SPRING, MAINE

PROGRAM ARRANGED
BY THE
SCIENTIFIC COMMITTEE



GURRIER G. WEYMOUTH
Chairman

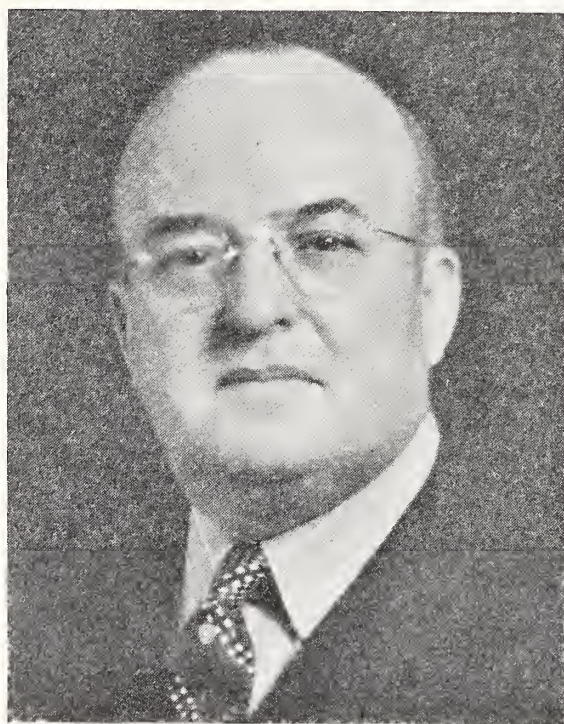
Members
SCIENTIFIC COMMITTEE



EUGENE E. O'DONNELL



FORREST B. AMES



ROLAND L. MCKAY



FREDERICK R. GARTER, *Secretary*

INFORMATION

Registration:

Registration headquarters will be in the Lobby of the Poland Spring House. Every member and guest is requested to register and receive a badge on arrival.

Emergency Calls:

All emergency calls will be given prompt attention. If expecting a call leave your name and where you can be located with the Association registrar.

Motor Travel to Poland Spring:

See "Communication from Secretary's Office Relative to Gasoline Rationing and Motor Travel to Poland Spring Convention," in Special Notices following Program.

Procurement and Assignment Service:

Brig. Gen. John G. Towne, M. C., of Waterville, Chairman for the State Medical Committee of Procurement and Assignment Service, will be present, during the entire session, to answer questions relative to the Service.

Papers:

All papers read before this Association shall be its property for publication in THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION, and when read shall be deposited with the Secretary.

SUNDAY, JUNE 21, 1942

4.30 P. M.

First Meeting of the House of Delegates.

7.00 P. M.

Dinner.

8.30 P. M.

Guest Speaker, Reverend George W. Shepherd, Boston

Subject: The Battle for Freedom in China and India.

The Reverend Mr. Shepherd has lived for more than twenty years in China. For the past few years, while in China, he has been personal economic advisor for Generalissimo Chiang-Kai Shek.

MONDAY, JUNE 22, 1942

Morning Session

9.00 A. M.-9.30 A. M.

General Assembly,

President P. L. B. Ebbett, presiding

Invocation,

Rev. Benjamin B. Hersey, Portland

Announcements,

Currier C. Weymouth, M. D., Chairman,
Scientific Committee

Frederick R. Carter, M. D., Secretary

9.30 A. M.-12.00 M.

Conferences

I

TRAUMATIC SURGERY

Chairman: William V. Cox, M. D.,
Auburn

1. Treatment of Compound Fractures in War Time,
Morris Goldman, M. D., Lewiston
2. Treatment of Burns,
Harry Brinkman, M. D., Farmington
3. The Use of Sulfa Drugs in Traumatic Surgery,
Francis Winchenbach, M. D., Bath
4. Neurosurgical Problems of Warfare,
William V. Cox, M. D., Lewiston

II

CLINICO-PATHOLOGICAL

Chairman: Theodore E. Hardy, M. D.,
Waterville

Co-Chairman: Julius Gottlieb, M. D.,
Lewiston

Conducted by: Howard T. Karsner, M. D., Director
of the Institute of Pathology, Western Reserve University, Cleveland Ohio.

Subject: Cases Presenting Vascular Lesions
Clinical Presentations,

Charles W. Steele, M. D., Lewiston
Pathological Introduction,

Julius Gottlieb, M. D., Lewiston
Kodachrome films of pathological specimens
will be presented.

III

OBSTETRICAL AND GYNECOLOGICAL

Chairman: Magnus Ridlon, M. D.,
Bangor

1. Endometriosis,
Walter F. W. Hay, M. D., Portland
2. The After-coming Head as an Obstetrical Problem,
K. Alexander Laughlin, M. D., Portland
3. Toxemias of Pregnancy,
Clarence Emery, Jr., M. D., Bangor

IV

OTO-LARYNGOLOGICAL-PEDIATRIC

Chairman: Pierre E. Provost, M. D.,
Augusta

Co-Chairman: Maurice E. Priest, M. D.,
Augusta

1. Acute Laryngotracheobronchitis.
Otolaryngological Aspect,
George O. Cummings, M. D., Portland
Pediatric Aspect,
Albert W. Fellows, M. D., Bangor
2. Influence of Tonsillectomy and Adenoidectomy on Children.
Otolaryngological Aspect,
Henry P. Johnson, M. D., Portland
Pediatric Aspect,
Thomas A. Foster, M. D., Portland
3. Complications of Acute Infectious Diseases.
Pediatric Aspect,
Edwin H. Place, M. D., Boston, Mass.
Otolaryngological Aspect,
Frederick T. Hill, M. D., Waterville

V

TUBERCULOSIS

Chairman: Edward A. Greco, M. D.,
Portland

1. The Influence Surgery Has Had in Tuberculosis,
Charles D. Cromwell, M. D., Fairfield
2. Diagnosis and Treatment of the Out-Patient,
S. David Daniels, M. D., Hebron

Luncheon
12.30 P. M.

Tables will be reserved for reunions of alumni of Boston University, Johns Hopkins, Bowdoin, McGill, Vermont, Tufts, Yale and Harvard Medical Schools, and members of the Tumor Clinics.

Afternoon Session
2.00-4.45 P. M.

SCIENTIFIC SESSION

1. Introduction of Visiting Delegates.
2. Endometriosis; Its Etiology, Symptoms and Treatment.
Joe Vincent Meigs, M. D., Boston
Discussion opened by Adam P. Leighton, M. D., Portland
3. Aortic Stenosis, Cause and Manifestations,
Howard T. Karsner, M. D., Professor of Pathology, Western Reserve University, Cleveland, Ohio
Discussion opened by Julius Gottlieb, M. D., Lewiston
4. Observations on Reversible Heart Disease,
Merrill Sosman, M. D., Professor of Roentgenology, Harvard Medical School, Boston, Mass.
Discussion opened by Langdon Thaxter, M. D., Portland

5.00 P. M.

Election of President-elect.

5.30 P. M.

Second Meeting of the House of Delegates.

Evening Session
7.00 P. M.

Dinner (Dress Informal)

Presentation of Fifty-Year Medals by President P. L. B. Ebbett.

Guest Speaker, Philip D. Wilson, M. D., Professor Orthopedic Surgery, Columbia University Medical School; Surgeon-in-Chief, Hospital for Ruptured and Crippled Children, New York City

Subject: Surgical War Experiences in England

Doctor Wilson, who has recently returned from one of several trips to England during the past two years, will talk chiefly about the treatment of air raid casualties and about the work of the American Hospital in Britain. He plans to show lantern slides as well as a motion picture film.

President's Reception.

Dancing.

TUESDAY, JUNE 23, 1942

Morning Session

9.30 A. M.-12.00 M.

Conferences

I

ANNUAL MEETING OF THE MAINE MEDICO-LEGAL SOCIETY

President: William Holt, M. D.,
Portland, presiding

1. Business Meeting
2. Discussion of Legal Angles of Medical Examiner System,

Introduced by Franz U. Burkett, Former Attorney General, Portland

Discussion by Attorney General Frank I. Cowan; Chief of State Police, Henry P. Weaver; County Attorney, Cumberland County, Albert Knudsen; County Attorney, Franklin County, Benjamin Butler

3. Medico-Legal Aspects of Coronary Occlusion,
Joseph E. Porter, M. D., Associate Pathologist, Maine General Hospital, Portland
4. Forensic Pathology,
Alan Moritz, M. D., Professor, Legal Medicine, Harvard University

II

SURGERY

Chairman: Isaac M. Webber, M. D.,
Portland

1. The Use of Blood Substitutes,
Joseph E. Porter, M. D., Portland
2. The Use of Sulfonamides in the Peritoneal Cavity,
Stephen A. Cobb, M. D., Sanford
3. Sulfonamides in the Treatment of Soft Tissue Lesions,
Dexter E. Elsemore, M. D., Dixfield
4. Sulfonamide Therapy in Pelvic Conditions of Women,
Magnus Ridlon, M. D., Bangor
5. The Use of Sulfonamide Drugs in the Urinary Tract,
C. Harold Jameson, M. D., Rockland
6. Selection of a Sulfonamide and Its Proper Use,
Hirsh Sulkowitch, M. D., Portland

III

PUBLIC HEALTH

Chairman: Roscoe L. Mitchell, M. D.,
Augusta

1. Brief History of Anti-T. B. Developments in Maine,
Lester Adams, M. D., Hebron
2. Early Diagnosis—Responsibility of General Practitioner,
L. H. Smith, M. D., Winterport
3. Modern Treatment,
George E. Young, M. D., Skowhegan
4. Meeting State Department of Health Responsibility in Tuberculosis Control,
Alton S. Pope, M. D., Massachusetts State Department of Health

Discussion opened by Estes Nichols, M. D., Portland. All physicians in attendance are invited to participate in the discussion and to present questions of interest to them.

IV

FRACTURES

- Chairman: Allan Woodcock, M. D.,
Bangor
1. Problem Fractures,
Thomas A. Martin, M. D., Portland
 2. Fracture Problems,
Samuel S. Silsby, M. D., Bangor
 3. Fractures of the Lower End of the Radius,
Frank H. Jackson, M. D., Houlton
 4. Fractures that May be Missed,
Carleton H. Rand, M. D., Lewiston

V

MEDICAL

- Chairman: Blynn O. Goodrich, M. D.,
Waterville
- Subject: Syphilis
1. History,
Storer W. Boone, M. D., Presque Isle
 2. Medicine,
James A. MacDougall, M. D., Rumford
 3. Surgery,
M. Tieche Shelton, M. D., Augusta
 4. Eye, Ear, Nose,
S. Judd Beach, M. D., Portland
 5. Gynecology and Obstetrics,
Clarence Emery, Jr., M. D., Bangor
 6. Nervous and Mental,
Forrest C. Tyson, M. D., Augusta
 7. Public Health,
R. A. Vonderlehr, M. D., Washington, D. C.
 8. General Treatment,
Benjamin B. Foster, M. D., Portland
 9. The Intensive Arsenotherapy of Syphilis,
Bernard I. Kaplan, M. D., Sing Sing Prison
Hospital Staff

Luncheon

12.30 P. M.

Tables will be reserved for Past Presidents and
County Secretaries.

Afternoon Session

2.00-5.00 P. M.

SCIENTIFIC SESSION

1. President's Address,
P. L. B. Ebbett, M. D., Houlton
2. Disability Valuations,
Henry H. Kessler, Lieutenant Commander
(M. C.) U. S. N. R.; Member Council of
Industrial Health, American Medical Assn.
Discussion opened by Stephen A. Cobb,
M. D., Sanford
3. Surgery of the Sympathetic System,
S. C. Harvey, M. D., Professor of Surgery,
Yale University, Surgeon-in-Chief, New
Haven Hospital
Discussion opened by H. Eugene Macdonald,
M. D., Portland
4. The Importance of Searching for Curable
Disease,
Chester Keefer, M. D., Professor of Medi-
cine, Boston University School of Medicine,
Boston
Discussion opened by Eugene H. Drake,
Lieutenant Commander (M. C.) U. S. N.
5. Medical Services in Civilian Defense,
Colonel Dudley A. Reekie, Chief Medical
Officer of Civilian Defense for the New Eng-
land Area; Allan Craig, M. D., Medical
Director for the State of Maine

Evening Session

7.00 P. M.

Annual Dinner (Dress Informal).
Guest Speaker, Morris Fishbein, M. D., Editor,
The Journal of the American Medical Associ-
ation, Chicago
Subject: Medicine and the War.

Special Notices

Communication from Secretary's Office Relative to Gasoline
Rationing and Motor Travel to Poland Spring Convention

OFFICE OF PRICE ADMINISTRATION
151 Water Street
Augusta, Maine

EDWARD C. MORAN, JR.
State Director

May 22, 1942

Frederick R. Carter, M. D.
Secretary—Maine Medical Association
State Hospital
Augusta, Maine

Dear Dr. Carter:

You have advised us that the Maine Medical Association will hold its annual meeting on June 21, 22, and 23, at Poland Spring. The meeting is educational in character. Is it proper for doctors to use their automobiles in attending the meeting under the "X" card?

In our opinion the answer is yes. I would point out, however, that to be within the full spirit of the rationing program, the doctors should not make unnecessary use of their automobiles to attend the meeting. If other means of transportation are available, or if by doubling up, the use of gasoline may be curtailed, the doctors should be encouraged to act accordingly.

Very truly yours,

(Signed) ROBERT B. WILLIAMSON,
State Attorney.

(OVER)

OFFICE OF PRICE ADMINISTRATION,
151 Water Street
Augusta, Maine

EDWARD C. MORAN, JR.
State Director
Telephone 520

Frederick R. Carter, M. D.
Secretary—Maine Medical Association
State Hospital
Augusta, Maine

In reply refer to:
6R:1:b:RBW
May 27, 1942

Dear Dr. Carter:

The Office of Price Administration will appreciate it if in notifying your members with respect to the use of "X" cards for the Poland Spring meeting, you will, at the same time, remind your members that all, or substantially all, of the use of a motor vehicle with an "X" card must be for the purpose of making professional calls or rendering medical services.

Very truly yours,
(Signed) ROBERT B. WILLIAMSON,
State Attorney.

Golf Tournament, 1942

The Association will hold its fifth annual golf tournament on the beautiful Poland Spring course. Now more than ever medical men need diversion and relaxation from hard and close application to medical problems. As many as possible should enter the tournament, and return score cards, properly attested.

There will be two events, one gross, the other a handicap affair. Players should enter both, and in competing should select their own handicap to bring their net score to a secret number between par 71 and bogey at 81. This method, in the absence of classes of players, has worked out very satisfactorily especially in regard to prizes. The championship will be decided on the lowest gross score submitted. There will be five net prizes.

Before beginning play in the tournament post your name and handicap with starter. U. S. G. A. rules will govern except where modified by local rules. A player may enter both events by playing one round of eighteen holes and having score card turned in to the chairman of the committee. Tournament will be played on Monday and Tuesday, June 22nd and 23rd.

Fifty-Year Service Medals

Fifty-Year Service Medals will be presented at the dinner Monday evening to the following members:

Cumberland County Medical Society
James P. Blake, M. D., Harrison, Bowdoin, 1892.
Edward F. Robinson, M. D., Falmouth, Dartmouth, 1892.
Owen Smith, M. D., Portland, Bowdoin, 1892.
Frederick E. Wheat, M. D., Westbrook, University of New York City, 1892.

Franklin County Medical Society
Verdeil O. White, M. D., East Dixfield, Harvard, 1892.

Kennebec County Medical Society
Luther G. Bunker, M. D., Waterville, Bowdoin, 1892.

Penobscot County Medical Society
Clayton H. Bayard, M. D., Orono, Physicians and Surgeons, Baltimore, 1892.

Piscataquis County Medical Society
Ralph H. Marsh, M. D., Guilford, Bowdoin, 1893.

Waldo County Medical Society
Eugene L. Stevens, M. D., Belfast, Bowdoin, 1892.

Program for the Ladies!

Registration headquarters will be in the Lobby at the Poland Spring House. Please register and receive a badge on arrival.

Mrs. P. L. B. Ebbett of Houlton, and Mrs. Carl H. Stevens, of Belfast, will be in charge of your entertainment.

Mrs. Fred B. Hall, Jr., Home Furnishing Advisor for Porteous, Mitchell and Braun Company, Portland, will speak to you on Monday afternoon, June 22nd, at 2.30 P. M. Her subject will be *Color Harmony*.

The annual bridge tea will be held at the Hotel on Tuesday afternoon; time and place to be announced on the Bulletin Board.

Details of the evening programs will be found in the Program published in this issue.

Golf, tennis, and the Beach Club will be available to those interested.

Convention Rates

The following room rates, which include all meals, will prevail:

Single rooms without bath\$6.00 per day

Double rooms without bath, per person\$6.00 per day

Double room and single room with connecting bath, for 3 persons, per person\$7.00 per day

Two double rooms with connecting bath for 4 persons, per person\$7.00 per day

Double room with bath for 2 persons, per person\$7.00 per day

Single room with bath, per person\$8.00 per day

The charge for non-registered guests for meals will be as follows:

Breakfast \$1.00

Luncheon \$2.00

Dinner \$2.50

Golf green fees will be \$1.00 per day. The tennis courts and Beach Club will be available without charge.

The Hotel Orchestra will be available four hours each day for dancing.

For reservations write the Poland Spring House, Poland Spring, Maine.

Make Your Reservations Today

Official Delegates, 1942

State Medical Societies

Connecticut

Stanley B. Weld, M. D., 179 Allyn Street,
Hartford.

Orville F. Rogers, M. D., 109 College Street,
New Haven.

Massachusetts

Warren H. Sherman, M. D., 9 Central Street,
Lowell.

Carleton W. Bullard, M. D., 194 High Street,
Newburyport.

New Hampshire

L. T. Togus, M. D., Manchester.

L. R. Hazzard, M. D., Portsmouth.

Rhode Island

Henry B. Moor, M. D., 147 Angell Street,
Providence.

Carl D. Sawyer, M. D., 182 Waterman Street,
Providence.

Vermont

Samuel Rogers, M. D., Stowe.

County Medical Societies

Androscoggin

Ralph A. Goodwin, M. D., Auburn.

Horace L. Gauvreau, M. D., Lewiston.

Merrill S. F. Greene, M. D., Lewiston.

Alternates:

Otis B. Tibbetts, M. D., Auburn.

William H. Chaffers, M. D., Lewiston.

Albert W. Plummer, M. D., Lisbon Falls.

Aroostook

Harold E. Small, M. D., Fort Fairfield.

Thomas G. Harvey, M. D., Mars Hill.

Alternates:

Herrick C. Kimball, M. D., Fort Fairfield.

Gerald H. Donahue, M. D., Presque Isle.

Cumberland

Thomas A. Foster, M. D., Portland.

Frank A. Smith, M. D., Westbrook.

DeForest Weeks, M. D., Portland.

Elton R. Blaisdell, M. D., Portland.

Philip H. McCrum, M. D., Portland.

Clyde E. Richardson, M. D., Brunswick.

Richard S. Hawkes, M. D., Portland.

Alternates:

Edward A. Greco, M. D., Portland.

Louis L. Hills, M. D., Westbrook.

Alvin E. Ottum, M. D., Portland.

Francis W. Hanlon, M. D., Portland.

Franklin

George L. Pratt, M. D., Farmington.

Alternate:

James W. Reed, M. D., Farmington.

Hancock

Raymond E. Weymouth, M. D., Bar Harbor.

Alternate:

Marcus A. Torrey, M. D., Ellsworth.

Kennebec

Leon D. Herring, M. D., Winthrop.

Blynn O. Goodrich, M. D., Waterville.

Ivan E. McLaughlin, M. D., Gardiner.

Frank B. Bull, M. D., Gardiner.

Alternate:

M. Tieche Shelton, M. D., Augusta.

Knox

C. Harold Jameson, M. D., Rockland.

Frederick Dennison, M. D., Thomaston.

Alternates:

Abbott J. Fuller, M. D., Pemaquid.

James Carswell, M. D., Camden.

Lincoln-Sagadahoc

Virginia C. Hamilton, M. D., Bath.

Oxford

Roswell E. Hubbard, M. D., Waterford.

Dexter E. Elsmore, M. D., Dixfield.

Alternates:

Walter G. Dixon, M. D., Norway.

James A. MacDougall, M. D., Rumford.

Penobscot

Forrest B. Ames, M. D., Bangor.

Henry C. Knowlton, M. D., Bangor.

Ernest T. Young, M. D., Millinocket.

Frank D. Weymouth, M. D., Brewer.

Alternates:

Arthur C. Strout, M. D., Dexter.

Martin C. Maddan, M. D., Old Town.

Herbert E. Thompson, M. D., Bangor.

Carl E. Blaisdell, M. D., Bangor.

Piscataquis

Harvey C. Bundy, M. D., Milo.

Alternate:

Nathaniel H. Crosby, M. D., Milo.

Somerset

Allan J. Stinchfield, M. D., Skowhegan.

Alternate:

Franklin P. Ball, M. D., Bingham.

Waldo

Raymond L. Torrey, M. D., Searsport.

Alternate:

Foster C. Small, M. D., Belfast.

Washington

Norman E. Cobb, M. D., Calais.

Alternate:

James C. Bates, M. D., Eastport.

York

Edward M. Cook, M. D., York Harbor.

Waldron L. Morse, M. D., Springvale.

James H. MacDonald, M. D., Kennebunk.

Alternates:

Carl E. Richards, M. D., Alfred.

Paul S. Hill, Jr., M. D., Saco.

Charles W. Kinghorn, M. D., Kittery.

Association Delegates to 1942 Annual Sessions

American Medical Association

Thomas A. Foster, M. D., Portland.

Connecticut State Medical Society

Neil A. Fogg, M. D., Rockland.

Massachusetts Medical Society

Forrest B. Ames, M. D., Bangor.

New Hampshire Medical Society

Carl E. Richards, M. D., Alfred.

Rhode Island Medical Society

Joseph E. Porter, M. D., Portland.

Vermont State Medical Society (1941)

Harry Butler, M. D., Bangor.

Commercial Exhibits at Ninetieth Annual Session

Artra Cosmetics, Inc., 12 Roosevelt Avenue, Bloomfield, New Jersey.

Artra Cosmetics, Inc., will exhibit Sutra, the American Medical Association accepted sunfilter cream. Sutra is an easily absorbed cream — a shield against painful sunburn, blistering and peeling. Imra, the modern odorless and painless cosmetic depilatory which involves a new chemical principle in scientific depilation will also be shown. At the same booth the Union Pharmaceutical Co., Inc., will display Saraka, a diet-aid for use in common constipation. Saraka consists of bassorin, a vegetable bulk-producing substance, and frangula, a mild activator, and is particularly effective in treating all cases of constipation due to lack of bulk in diets.

The Acousticon Institute of Portland, 690 Congress Street, Portland, Maine.

The Acousticon Institute of Portland announces that it will show and demonstrate the new Symphonic, Radio Amplified, Acousticon Hearing Aid, at the Maine Medical Association Convention, Poland Spring, June 21, 22, 23.

You are cordially invited to call at our exhibit and examine this new instrument.

Acousticon — 40 Years' Uninterrupted Service to the Deafened. Offices in all the principal cities of the United States and Canada.

Elmer N. Blackwell, 207 Strand Building, Portland, Maine.

Surgical Appliances Exhibit.

Supporting Belts, Trusses, Arches, Women's Corset Supports, and Elastic Hosiery, are now helping more men and women to keep physically fit, and keep them working. You can profit by visiting our exhibit this year, and ask Mr. Blackwell about the many supporting appliances available for your patients. Don't pass up the opportunities again this year. Our 20 years of experience can help you with your problems of support for men, women and children. At the BLACKWELL EXHIBIT you will find all the latest designs in corrective appliances.

Brewer & Company, Inc., 12 East Worcester Street, Worcester, Massachusetts.

Brewer and Company produces a very fine line of enteric coated specialties, as follows: Thesodate* enteric coated tablets and gelatin capsules for the treatment of Coronary Artery Disease, Luasmin enteric coated tablets and gelatin capsules for the relief of Bronchial Asthma, and enteric coated Codeine Phosphate Tablets, 1/4 grain, for the relief of useless coughs.

* Featured at our exhibit.

The Doho Chemical Corporation, 58 Varick Street, New York City.

Animated Pathological Ear Exhibit.

The Auralgan Exhibit consists of a model of the human auricle, four feet high, together with a series of twenty-four three dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depicts a different pathologic condition based upon actual case observation and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

Geo. C. Frye Co., 116 Free Street, Portland, Maine.

The George C. Frye Company is again happy to extend a cordial invitation to the members of the Maine Medical Association to visit their booth at the forthcoming annual meeting.

There will be on display new items of interest to the medical profession and our representatives will be pleased to have the opportunity of discussing present-day problems with their many friends.

Our booth will be in charge of Mr. Sidney F. Cheney and Mr. Claude W. Lamson, who regularly contacts the physicians of this State.

General Electric X-Ray Corporation, Branch Office, 620 Beacon Street, Boston, Massachusetts.

The General Electric X-Ray Corporation realizes the importance of the continuity of medical society meetings, as well as the dissemination of medical information, and will continue to support the Maine Medical Association meeting thereby contributing to its record of continuous performance. The physicians are invited to stop in and discuss their problems of new and used X-ray and electro-medical apparatus and their technical problems.

E. F. Mahady Company, 851-857 Boylston Street, Boston, Massachusetts.

At the E. F. Mahady Company exhibit, Mr. Perkins will demonstrate a complete line of Burdick physical therapy equipment. Mr. Mills will be on hand to explain Cutter's intravenous solutions and plasma and Cutter's equipment for hospital preparation of plasma.

Maine Surgical Supply Company, 10 Longfellow Square, Portland, Maine.

May we extend to the members of the Maine Medical Association a cordial invitation to visit our exhibit at the State convention. We welcome these annual meetings for it gives us the opportunity to greet our present customers and make new friends. This year we will endeavor to display new items of interest to all members. John Lacy and Ernest Niles will be present to welcome one and all.

Mead Johnson & Company, Evansville, Indiana.

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pabulum, Oleum Percomorphum, and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to our booth will be time well spent.

Philip Morris & Co., Ltd., 119 Fifth Avenue, New York City.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

The P. J. Noyes Company, Lancaster, New Hampshire.

We are grateful for the opportunity of contributing in a modest way towards the success of the meeting of the Maine Medical Association. Joe E. Brown, Representative.

Petrogalar Laboratories, 8134 McCormick Boulevard, Chicago.

Physicians are cordially invited to visit the Petrogalar exhibit where a new and enlightening story on Petrogalar, an aqueous suspension of mineral oil, will be related. Beautifully colored anatomical drawings and new literature may be had upon request from our representative, Mr. G. E. Schneider, who will be in constant attendance.

Phospho-Soda (Fleet). The C. B. Fleet Co., Inc., Lynchburg, Virginia.

An ethical house, long known for a single product.

What may you, as a Maine physician, expect from this stable, non-toxic concentrate of the two U. S. P. sodium phosphates?

1. Accurate dosage, regulated to the patient and to his condition.
2. The maximum therapeutic effectiveness of sodium phosphate.
3. Quick, gripeless evacuation, for emergencies.
4. Mild, controllable elimination, for chronic biliary disturbance or constipation.
5. Unusual freedom from after-irritation, with normalizing buffer action.
6. Safe action with administration of the sulfonamides.

Are you getting the full value of Phospho-Soda (Fleet) in your daily problems of elimination?

Secure samples at the convention, with souvenir.

Schering Corporation, Bloomfield, New Jersey.

Oreton, the most potent androgenic hormone known to medicine; Oreton-M Tablets for orally effective male hormone therapy; Pranone, the orally effective corpus luteum preparation—in fact, all the highly advanced Schering hormones are on display at the Schering exhibit, which is practically a survey of recent endocrine progress. In addition, there are some other particularly interesting products such as Sulamyd (Sulfacetimide)

for the treatment of urinary tract infections, and Sulfadiazine-Schering, most efficient sulfonamide for pneumonia. Members of the Medical Research Division will be present and welcome discussion of problems.

Attending Representatives: Dr. William Stoner, and Mr. R. W. St. Clair.

Surgeons' & Physicians' Supply Co., 761 Boylston Street, Boston, Massachusetts.

The Surgeons' & Physicians' Supply Company's booth will be in charge of our Maine representative, Mr. Charles H. Joy. We will have on hand as many new and interesting items as we can, and if possible, equipment that we don't very often have the opportunity to exhibit.

Tailby-Nason Company, Boston, Massachusetts.

Tailby-Nason Company, Pharmaceutical Manufacturers of Boston, Massachusetts, will have a display of Vitaguent (Cod Liver Oil Ointment) and medicinal tablets, Minto-Payes for Indigestion, Potensors for Blood Pressure.

John Wyeth & Brother, Inc., 1600 Arch Street, Philadelphia.

You are cordially invited to visit the booth where John Wyeth & Brother will exhibit the Hemo-Guide, an aid in hematologic diagnosis. In addition, the following Wyeth specialties will be displayed:

Amphojel—Wyeth's Alumina Gel for the control of hyperacidity and peptic ulcer.

B-Plex—The complete vitamin B complex.

Beptron—Wyeth's beef liver with iron for the nutritional anemias.

Kaomagma—For the control of diarrhea and colitis.

A-B-M-C Ointment—For the relief of arthritic pain.

Silver Picrate Products—For the treatment of trichomonas and anterior urethritis.



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Reference: Maine Medical Association Secretary

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AND MAIL

Without obligation
send me full details concerning your service.

Name
Street
City

Treasurer's Report—Continued from page 130

STATEMENT OF REVENUE AND EXPENSE,
ONE YEAR ENDED MAY 31, 1942

REVENUE	
Dues	\$ 5,548.00
Income from Securities	315.00
Interest Received	204.87
Exhibit Space — 1941 Conven- tion	883.00
C. M. A. B. Advertising	2,592.33
Local Advertising	1,074.72
Subscriptions and Sales of JOURNALS	15.00
Total Revenue	<u>\$10,632.92</u>

EXPENSES	
Salaries:—	
Dr. Jackson, Editor	\$1,000.00
Dr. Carter, Secretary and Treasurer	1,200.00
Mrs. Kennard, Assistant Secre- tary	1,500.00
Travel Expenses:—	
President	300.00
Secretaries	159.58
Councilors	85.26
Office Expenses:—	
Office Assistants	119.50
Supplies and Stationery	373.98
Postage and Mailing Expense	172.41
Rent	300.00
Telephone	133.55
Lights	11.00
Auditing	53.50
Miscellaneous	81.70
Committee, Graduate Education	59.62
Clinical Session	37.10
Delegates, N. E. Medical Socie- ties	14.00
A. M. A. Meeting	91.75
Medical Advisory Committee	515.67
Annual Meeting	545.72
Printing	3,439.29
Plates	78.19
Total Expenses	<u>10,271.82</u>
Revenue in Excess of Expense — One Year	<u><u>\$361.10</u></u>

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS,
ONE YEAR ENDED MAY 31, 1942

Cash in Banks, June 1, 1941 \$14,542.09

RECEIPTS	
Received from Dues	\$5,476.00
Income from Investments	519.87
Exhibit Space Rentals	827.00
Liquidating Dividend — Fidel- ity Trust Co.	154.43
Subscriptions and Sale of JOURNALS	15.00
Advertising	3,738.57
Refund from Eye and Ear Com- mittee	60.45
	<u>10,791.32</u>
	<u>\$25,333.41</u>

DISBURSEMENTS	
Salaries	\$3,700.00
Traveling Expenses	544.84
Office Expenses	1,245.64
Committees, Clinical Session and A. M. A. Meeting	202.47
Annual Meeting—1941 and 1942	541.92
Medical and Advisory Commit- tee	515.67
Printing and Plates	3,517.48
New Equipment	143.66
	<u>10,411.68</u>
Cash in Banks — May 31, 1942	<u><u>\$14,921.73</u></u>

Canal National Bank — Check- ing Account	\$3,246.59
Canal National Bank — Savings Account	2,035.82
Maine Savings Bank	4,615.66
Portland Savings Bank	4,577.71
First National Granite Bank	445.95
	<u>\$14,921.73</u>

V

VICTORY

V

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tions, to do our share by giving prompt and efficient service to our Maine
Hospitals and Physicians.

MAINE SURGICAL SUPPLY CO.

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Portland, Maine

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PRESSEY, HAROLD E., Camp Blanding, Florida
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WISEMAN, ROBERT J.,	140 Lincoln St.,	Lewiston

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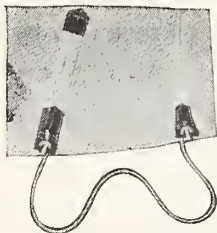


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The Journal of the Maine Medical Association

Volume Thirty-three

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No. 7

*Presidential Address**

By P. L. B. EBBETT, M. D., Houlton, Maine

I fully appreciate the honor my position, as President of the Maine Medical Association, affords me of welcoming you to this, the 90th annual session of our Association. I desire to thank our distinguished guests who have contributed so much to the success of our meeting. I also wish to thank the members of the Scientific Committee who have worked very hard to give us an excellent program; also all others who have taken part in the conferences and other divisions of the program. My thanks go also to the officers, members of the Council and various committees who have coöperated so diligently in carrying on the work of the Association during the past year. Every man I have called on has accepted the task asked of him and performed it in an excellent manner. Without the assistance of these men who contributed so freely of their time I would have been helpless. I now feel, however, thanks to the excellent work of my predecessors and of my associates, that during the year the affairs of the Association have progressed very favorably. I am especially grateful to our Secretary, Dr. Carter, and his assistant, Mrs. Kennard, who in spite of having so much other work were always ready to help in every possible manner.

Another to whom I feel much indebted is not a member of our profession. I refer to Mr. Herbert Locke, who has been very active in our interests in legislative affairs and who, by his persevering efforts, was able to obtain legislative decisions of much benefit to our Association.

Probably at no time in the history of our Association have we been confronted by such momentous problems as we are facing today. The Government is calling our boys to military service and it is up to the Medical Fraternity to provide them with adequate medical care. Military authorities state that they need 6½ doctors for every 1,000 men, whereas in civilian life they estimate 1½ doctors can care for 1,000 men. No doubt the 6½ doctors per 1,000 men in service will be obtained but are we going to have 1½ doctors per 1,000 civilian population left to take care of that group? The task that falls on the shoulders of the older men who cannot enter military service will not be a light one, but the Medical Profession has never yet fallen down in rendering service when service was needed and I have no doubt we will in some way be able to surmount the obstacles which now seem like almost impassable barriers.

* Presented at the 90th Annual Session of the Maine Medical Association, at Poland Spring, Maine, June 23, 1942.

I am told by Military circles that our young men are not coming to the front and enlisting in anything like the numbers needed. If this is so, it is very regrettable for when our young laymen are fighting for the preservation of Democracy and our National life and honor, we certainly should do all in our power to aid them. We older men have been told that we are not wanted because they fear we could not stand up under the hardships we might be exposed to and would have to be cared for ourselves, but this does not apply to our younger men who are physically qualified for service. Young men don't give the Military a chance to say the members of our profession are slackers; that we are not doing our part in keeping our Nation safe for Democracy. We, of the profession, know that this is not so but we have yet to prove it to the people at large. If Uncle Sam wants $6\frac{1}{2}$ doctors for every 1,000 men he will surely get them, but I would very much prefer to see him get them by voluntary enlistment, rather than by compulsory draft.

As I said before, those of our profession who are not acceptable for Military service will find our work very much harder and we will need to plan how we can best care for the civilian population. Not only must we be ready to care for the ordinary medical conditions which arise, but we must be prepared for emergencies of all kinds. Should these be war casualties due to bombing, sabotage, etc., we could probably take care of such conditions because we could get help from areas which had not been afflicted with such calamities, but what if an epidemic occurred which was nation-wide, then we would have to stand on our own feet as the Doctors in other communities would have similar difficulties to contend with. We must plan and be prepared to meet such eventualities as may arise and where is there a better place to plan than here at our State of Maine Medical Meeting? Let us discuss these possible emergencies at our business meetings. Let us gather suggestions from each other. Let everyone take part for we are all concerned. The problems we will have to contend with will vary greatly. They will differ greatly as to location. Portland's

problems will not be like those of a rural community. The problems of Aroostook and Piscataquis will not be similar to those of Kennebec or Androscoggin which are much more thickly populated, thus permitting a doctor to attend many more patients. Each locality will have many like problems but all will vary to some extent. In Aroostook, the long distances and the poor roads are going to be hard on tires. The allocation of passenger car tires for southern Aroostook, i.e. from Mars Hill south, for the month of May was 3 tires. Now how far would these go even if doctors got them all? If we cannot get tires for our automobiles we certainly cannot take care of the civilian population. This is perhaps a minor matter but it needs consideration. If we have epidemics we will need to have centralized stations for caring for them so that one Doctor can care for many more patients. Have we already planned for such stations? If not, we should do so at once so that, when and if the emergency arises, we will be prepared to work and take care of it.

Our Nation was not prepared for war and we are now paying the penalty for such unpreparedness. I hope and trust the Medical Profession will not find itself in a similar condition. If we, as a body, get together and prepare for whatever disasters may arise I know that we can overcome them. In the past the profession has always given its best and has never failed when Uncle Sam called. He is calling on us now more urgently than ever before and again I know the medical profession is going to come through 100% efficient. In the words of the song, "We have done it before, and we can do it again," we will do it again.

In closing, I wish to say to my successor in office that I hope he will enjoy his work as much as I have and to assure him that I shall always be ready to assist him in any possible way I can, just as he has assisted me during the past year. Again I desire to thank you all for your forbearance with my mistakes, for your many courtesies, and for your very generous assistance during my year as President of your Association.

The Central Maine Blood and Plasma Bank

Plan for Blood and Plasma Banks, State of Maine: Part II

JULIUS GOTTLIEB, M. D., F. A. C. P.,

LT. GILBERT CLAPPERTON, M. C., U. S. A.

BERTHA WOOD EMOND, R. N.

In a recent publication (Part I),¹ the writers presented a general plan for blood and plasma banks for the State of Maine in which the establishment of three central banks was recommended, each to serve primarily as the processing center for a group of regional banks, covering approximately one-third of the state area. This paper deals with a detailed description of the organization of the Central Maine Blood and Plasma Bank, including the conduct of a blood donor clinic, and the technic employed in the collection, processing, storage and dispensing of blood plasma.

DONOR PROCUREMENT:

To a donor procurement committee is assigned the duty of obtaining lists of volunteers and to arrange for appointments for blood donor clinics. Donors were readily obtained by consulting the national defense cards, and as a result of making known the need for donors to the various local organizations, and announcement of activities of the

bank through the local newspapers. Each prospective donor is notified to appear at a certain indicated time with the following instructions: Blood donors are not to eat for at least four hours prior to appearance at the blood donor clinic. If, however, the donor is hungry, he may take the following: Coffee or tea with sugar, but without milk or cream; orange juice or any clear fruit juice; toast, bread or crackers without butter; no ice cream, chocolate malted milk, etc.

BLOOD DONOR CLINIC:

The blood donor is registered, is referred to a technician, who obtains a hemoglobin estimate, temperature, and blood cells for blood-grouping, and is then referred to a physician for a brief history and physical examination. The physician assumes responsibility for acceptance or rejection and indicates the amount of blood to be withdrawn. Donor's registration card must be fully completed. On the reverse side of this card is a legally sealed contract, previously signed by donor, and witnessed by the registrar.

(Forms are presented on next page).

¹Part I—Plan for Blood and Plasma Banks, State of Maine, *Me. Med. J.*, V. 33, No. 4, April, 1942, pp. 81-83.

Date	BLOOD AND PLASMA BANK FUND	No.
Time M.		Group (International)
		Color
DONOR'S REGISTRATION CARD		

Last Name	First Name	
		Age: Sex:
Street and Number	City	State
Phone No.:	Last Donation:	Hours since last meal:
Intended for: Patient: <input type="checkbox"/> Defense <input type="checkbox"/> Unrestr.		
Temp.: Pulse: Hemoglobin:% Weight: Blood Pressure:		
HISTORY:		
EXAM:		
Asthma?	Pain in Chest?	Skin
Malaria?	Coughed up Blood?	Mouth
Tuberculosis?	Shortness of Breath?	Pharynx
Syphilis?	Swelling of Feet?	Heart
Any serious Illness?	Convulsions?	Lungs
Illness in last Month?	Fainting Spells?	Serology by
Persistent Cough?		
Remarks:		
Recommended that c.c. be taken. Amount taken c.c.		
Reaction of Donor to Phlebotomy:		
Signed: M. D.		

(REVERSE SIDE)

BLOOD AND PLASMA BANK FUND

CENTRAL MAINE GENERAL HOSPITAL

Lewiston, Maine

I am voluntarily furnishing blood through the Central Maine General Hospital for its use, and for use by others to whom it may be entrusted, either as blood or plasma, in the treatment of patients, and for that purpose I am at my own risk submitting to the tests, examinations and procedures customary in connection with donations of blood. I agree that neither the Central Maine General Hospital nor any surgeons, physicians, technicians, nurses, agents or officers connected with any of them, or who may be participating otherwise in this work, shall be in any way responsible for any consequences to me resulting from the giving of such blood or from any of the tests, examinations or procedures incident thereto, and I hereby release and discharge each and all of them from all claims and demands whatsoever which I, my heirs, executors, administrators or assigns have or may have against them or any of them by reason of any matter relative or incident to such donation of blood, and I hereby agree that said Hospital may use or permit the use of said blood or plasma in any way deemed by it to be advisable for the benefit of persons in need of such treatment, or to create a reserve in its hospital or elsewhere for such needs.

IN WITNESS WHEREOF I have hereunto set my hand and seal this
day of, 194.....
..... (Legal Seal)
In the presence of
.....

PHLEBOTOMY SET

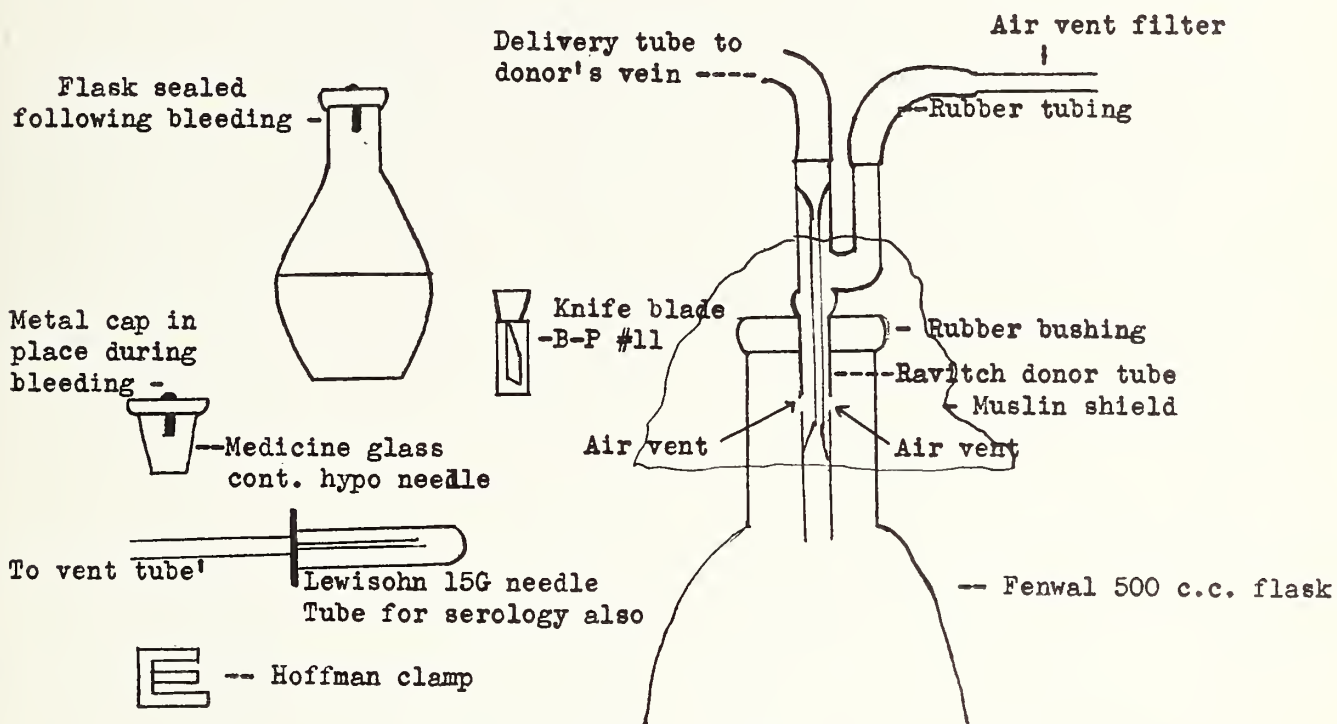


Diagram No. 1

COLLECTION OF BLOOD:

Phlebotomy set (See diagram No. 1):

At this center the Fenwal collecting flask is employed, and the set contains: A Fenwal flask, 500 c.c. capacity, complete with rubber bushing (also referred to as a stopper or cap) and stainless steel cap, containing 60 c.c. of 2% Sodium Citrate solution.

Ravitch donor vent tube, complete with intravenous tubing attached. To one arm of vent tube is attached rubber tubing, short, at the end of which is a glass connecting tube filled with cotton for air vent. To the other arm of the vent tube (donor arm) is attached a longer rubber tubing, at the end of which is attached a Lewisohn, 15 G. needle, encased in a glass test tube, held in place with a rubber band.

Muslin shield with hole in center through which extends the Ravitch tube.

Hoffman clamp.

Hypo needle.

Medicine glass (containing hypo needle and small piece of gauze).

No. 11 B-P abscess blade contained in a stoppered tube (point of blade in a stopper).

Extra cork stopper for needle encasement tube, for serology sample.

The phlebotomy set is wrapped in a towel, placed in a tin can, measuring 7" high and 6" wide, about which is a canton flannel bag. The bag and its contents are referred to as the donor set, and is sterilized by autoclaving at 15 lbs. of pressure for 30 minutes. Similar sets are provided to each of the associated blood donor clinics.

PREPARATION OF DONORS:

The donor assumes a recumbent position, with the selected arm bared to the shoulder, and extended in a position suitable to the operator. A rubber sheet and sterile towel is placed under the arm, a soft rubber tourniquet is placed in position for application immediately prior to the phlebotomy. The

arm is scrubbed with soap and water for two minutes, using gauze on sponge forceps, followed by Alcohol and Tincture of Zephiran.

PHLEBOTOMY:

The donor set is unwrapped, the metal cap is removed and placed stem downward, rimming the medicine glass, thus keeping stem and inner surface of cap sterile. Care is taken not to contact the rubber bushing in the flask. Donor tube is inserted in bushing and sterile muslin shield is drawn down over rubber bushing and secured with elastic band. Tubing on air vent is clamped, flask is inverted, allowing a small amount of citrate to moisten delivery tube and needle, as well as the entire inner surface of the flask. Hypo needle is attached to a master syringe containing 1% Novocain, tourniquet is applied and a small skin wheal is raised over the chosen vein. Veins must not be palpated by operator, despite his sterile preparation. The operator scrubs for ten minutes before the first bleeding and for two minutes between cases. The skin overlying the vein may be pierced directly with needle, or with abscess knife blade, effecting a small nick in the skin with an upward motion. After venepuncture, the blood is allowed to flow by gravity with donor rhythmically opening and closing his fist, at a rate of about fifteen per minute. Suction is applied only when needed.

When desired amount of blood is obtained, a Hoffman clamp is placed on delivery tube, close to glass donor tube, slightly distal to which, allowing space for scissors blade, a straight clamp is applied and tubing cut between. With tourniquet on, and needle in place, the clamp is released and test tube for serology is filled. Clamp is reapplied, tourniquet released, needle withdrawn, and a sterile dressing placed at site of venepuncture and dressing fixed with Elastoplast, for twenty-four hours.

Attention is then directed to collecting apparatus. Sterile apron is lifted upward, away from rubber cap, enveloping the glass donor tube. With a quick pull directly upward, the Ravitch tube is removed from the rubber stopper. The metal cap is now replaced by a quick, firm push, sealing the flask. The last two procedures must follow

each other quickly to avoid the possibility of air-borne bacteria entering flask.

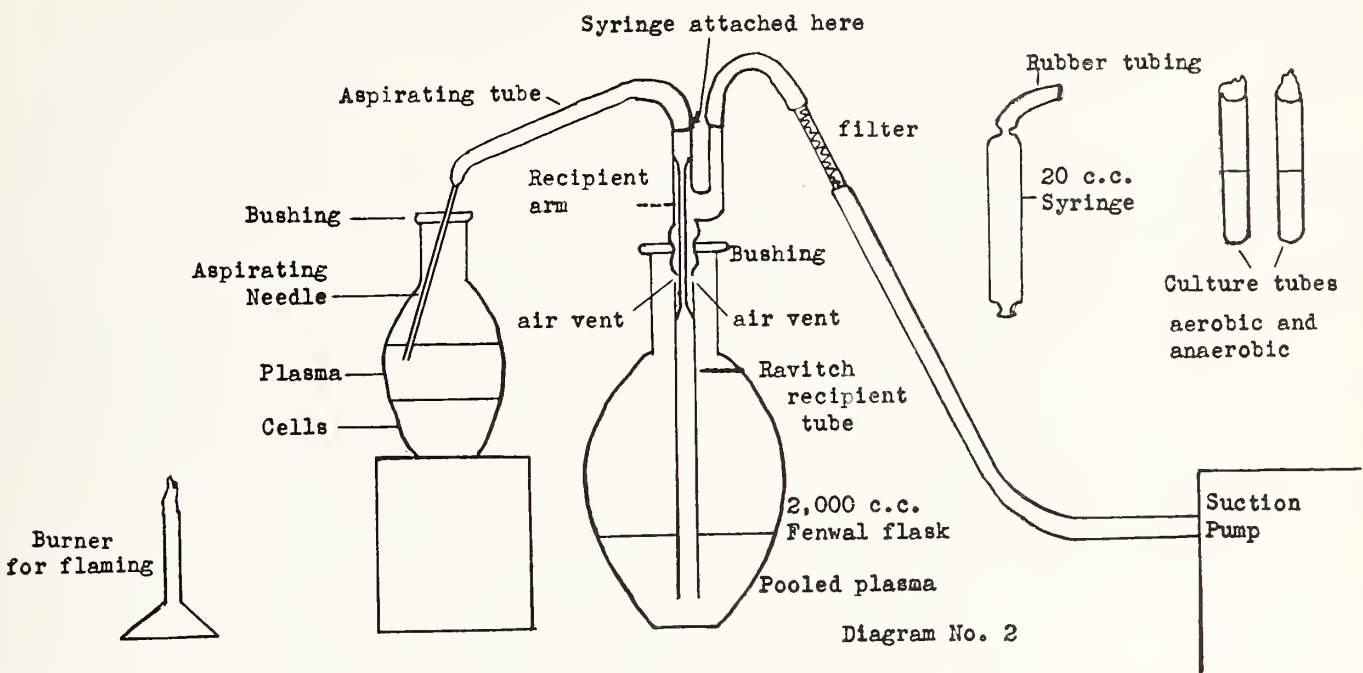
All tubing and needles coming in contact with blood are taken immediately to utility room and rinsed with cold tap water. Flask and serology tube are labeled and placed in refrigerator at 4° C.

Donor remains in recumbent position for at least ten minutes, and is then permitted to sit up for a few minutes, following which he is escorted to adjoining room for nourishment, unless some untoward symptoms are presented. Faintness may be overcome, by elevating the foot of the bed twelve inches, and the administration of Aromatic Spirits of Ammonia (1 dr. in a glass of water).

POOLING OF PLASMA:

Blood cells are permitted to settle from three to five days in the refrigerator, during which period, serological tests have been completed, and the blood groups determined. Insofar as possible, all blood groups should be represented in each of the pools. It is recommended that pools shall be comprised only of such bloods obtained from one institution and that no intra-pooling be practiced from collections of various hospitals. In a coöperative type of bank, this enables a check on the sources of contamination, if found. Pooling is accomplished in an ultra-violet cabinet by properly masked and gowned technicians. Pools contain from five to ten single blood collections. The plasma of each collection flask is aspirated into a 2,000 c.c. Fenwal flask, by means of a nine-inch aspirating needle, employing a Gomac suction apparatus.

Each pool is cultured for both aerobes and anaerobes, employing nutrient broth for the former and Brewer's media for the latter. Cultures are carried on for two weeks at 37.5° C. Plasma is stored in Arctic trunks immediately after transferring into the Baxter Centri-Vac flasks. If lyophilizing is contemplated, the shelling process should be employed. Plasma frozen by this method may be rendered liquid again and shelled, should lyophilizing become advisable. Each flask is carefully labeled according to a pooling series.



TECHNIC FOR POOLING OF PLASMA (See Diagrams No. 2 and 3) :

Workers before pooling must scrub, wear masks and gowns. Plasma is pooled into a 2,000 c.c. Fenwal flask with rubber bushing in place, through which is inserted a Ravitch recipient vent tube. A 9-inch aspirating needle which is connected by a rubber tube to the recipient arm of the Ravitch tube is inserted into the supernatant plasma. A vent tube (connecting tube with cotton filter) is attached to the suction tube by means of long rubber tubing, and to the other arm of the Ravitch tube by a short tubing (see diagram). Care must be taken not to aspirate the red cells. When the desired amount is

obtained in the pooling flask, aspirating tube is detached from Ravitch tube, the end of which is flamed before attaching a short rubber tubing to which is fixed a 20 c.c. syringe, employed for withdrawal of 10 c.c. of plasma for inoculating culture tubes. The Ravitch tube is now removed from the rubber bushing, and replaced by metal cap, thus sealing flask. Both rubber bushing and stem of metal cap are flamed immediately preceding contact.

Pooled plasma is now allowed to stand for twenty-four to forty-eight hours, thus permitting the settling of red cells, inadvertently aspirated into it.

The plasma is now transferred into storage flasks. In this laboratory the Baxter Centri-

Pooling to storage flask

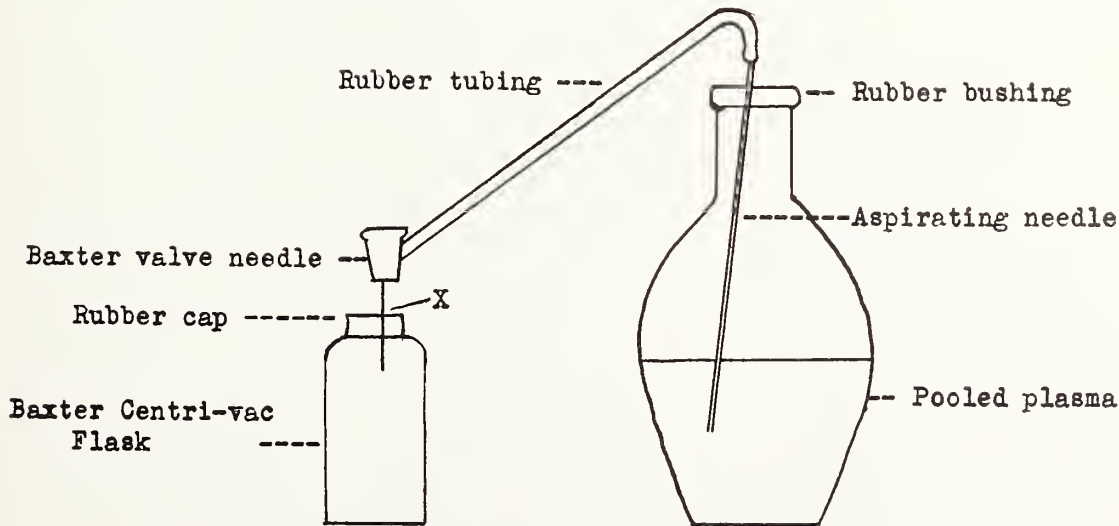


Diagram No. 3

vac flask is employed. The procedure is as follows: An eleven-inch aspirating needle is inserted through the hole of the rubber bushing after removal of metal cap and flaming; this needle being attached to a rubber tube, which is connected at the other end to a Baxter valve needle. The Baxter flask is prepared by removing metal protection cap and rubber disc, exposing a rubber cap which is visible through the remaining diaphragm. The Baxter needle is plunged through a prepared site marked "X," the valve is opened, until the desired amount of plasma is obtained, which is usually from 400 to 500 c.c. The valve is now closed, and the Baxter needle removed. Plasma is now ready for freezing and storage in an Arctic Trunk at 20° C. below freezing. These are released for use—only after the bacteriological cultures have proven negative after two weeks' incubation. For dispensing plasma, the Baxter dispensing tubes are recommended. When not available, the usual gravity tubes may be employed and filter improvised by using layers of gauze.

NOTE: The writers wish to express their gratitude to Dr. John Scudder, Presbyterian Hospital, New York, N. Y.; Dr. Frank Barton, Massachusetts Memorial Hospitals, Boston, Mass.; Dr. William Dameshek, Tufts Medical School faculty, Boston, Mass.; for their guidance, instruction and encouragement.

Bingham Hospital Extension Service, Central Maine General Hospital, Lewiston, Maine.

APPENDIX:

CARE OF EQUIPMENT

Care of Intravenous Equipment at time of purchase:

Bushings:

1. Cover rubber bushing with 0.5% Sodium Carbonate Solution.
2. Autoclave for 30 minutes.
3. Rinse with hydrochloric acid 1%.
4. Rinse with distilled water until neutral to litmus paper.
5. Place in clean, covered containers until ready to use.

Rubber Tubing:

1. Cover rubber tubing with 0.5% Sodium Carbonate Solution.

2. Be sure to have some of the Sodium Carbonate solution run through the inside of the tubing.
3. Autoclave for 30 minutes.
4. Rinse with hydrochloric acid 1% having some acid run through the inside of the tubing.
5. Rinse with distilled water.
6. Run distilled water through tubing until neutral to litmus paper.
7. Tubing is now ready to be cut in desired lengths and used.

Care of Intravenous Equipment after Use:

Flasks:

1. Rinse with tap water.
2. Clean in washing machine.
3. Rinse with distilled water either six times by hand or four times with Fenwal Rinser.
4. Invert in rack.
5. Flasks are now ready for solutions.
6. If flasks stand more than two hours, the cleaning process must be repeated.

Metal Caps:

1. Wash in hot soapy water.
2. Rinse with cold water.
3. Rinse with distilled water.
4. Place in a clean covered container until time for use.
5. Rinse with distilled water just prior to use.

Rubber Bushings:

1. Wash rubber caps in hot soapy water.
2. Rinse with cold tap water.
3. Boil in sodium hydroxide 0.5% for 45 minutes.
4. Rinse with distilled water until neutral to litmus paper.
5. Place in a clean covered container until ready for use.
6. Rinse bushings in distilled water just prior to use.

Intravenous Tubing:

1. Disconnect tubing from glassware.
2. Run cold tap water through tubing to remove blood.

3. Clean in washing machine for one minute.
4. Connect tubing just cleaned together with glass connectors.
5. Run distilled water through tubing until neutral to litmus paper.
6. Do not dry tubing.
7. Assemble sets with tubing while still wet.

Vent Tubes:

1. Rinse vent tubes and connecting tubes with cold water to remove blood.
2. Place in a jar of cleaning solution for at least six hours.
3. Remove cleaning solution from glassware with aid of suction by sucking distilled water through each piece separately.
4. Place in a clean covered container until ready for use.

Needles:

1. Run cold water through each needle with a syringe or bulb.
2. Run stylet through each needle.
3. Run hot soapy water through each needle.
4. Run cold water through each needle.
5. Run distilled water through each needle.
6. Run acetone through each needle.
7. Test all needles for hooks and prints.
8. Place in a clean container until ready to use.

Donor Sets Contain:

1. Rubber tubing, as previously described.

2. Ravitch donor tube (complete with Muslin shield and rubber band).
3. 1 Lewisohn needle, 15 G.
4. Test tube covering above needle (the two held together with rubber band).
5. Cotton filled vent tube.
6. 1 Medicine glass.
7. 1 sponge.
8. 1 Hypo needle.
9. 1 Hoffman clamp.
10. 1 Fenwal Pyrex Flask, complete with rubber bushing and metal cap, and containing citrate sol. Wrap in towel, place in tin can covered with cotton flannel bag; tie bag, and autoclave for 30 minutes at 15 lbs. pressure. Upon removing sets from autoclave, flasks are sealed by pushing metal caps down with a quick, firm push (this is done without opening set).

ADDENDUM

Since this paper has been prepared, the following two procedures have been added:

1. Centrifuging of blood, replacing sedimentation. By this process, a greater yield of plasma, approximating 10%, is obtained, as well as the acceleration of plasma separation. This affords an opportunity for better preservation of antibodies and complements. The apparatus employed is the International Centrifuge and the Fenwal collecting centriflasks.

2. The Seitz Filter. This is employed for clearing of cloudy plasma and to insure sterility in questionable contaminated pools.

The final eradication of tuberculosis is dependent on the eradication of the foci from which it is spread, and the family of the patient with tuberculosis must be carefully studied.—J. G. BOHORFOUSH, M. D., and PAULINE MICHAEL, *Amer. Rev. of Tuberc.*, Oct., 1940.

Dust swept under the sofa disturbs no one — until it is discovered — nor does tuberculosis hidden from the public view.

Pulmonary tuberculosis may still masquerade as chronic bronchitis.—F. G. CHANDLER, *Lancet*, June 8, 1940.

Rhinology and Otology

By LLOYD H. BERRIE, M. D., Caribou, Maine

A BRIEF SUMMARY OF SOME COMMON DISEASES

The most frequently infected part of the body is the nasal cavity. The role of the mucous membrane lining of the nasal cavity has been treated too lightly as an important factor concerning the induction of infection and of health maintaining respiration. This membrane secretes, normally, a thin mucous which is propelled towards the nasopharynx by the cilia of the ciliated epithelium. The function is twofold. First, invaders, whether the virus or other organisms, cannot gain a foothold. Second, about one liter of moisture in 24 hours is liberated to be taken up by the inspired air.

It has been established that should there be an arrest of mucous secretion of an hour or two, sufficient break in the mucous resistance occurs which may permit invasion by infective agents. When ciliary action is paralyzed the same result obtains. And also, when blocking of the nasal air passages occurs sufficiently to cause partial or complete mouth breathing, trouble begins. It is because of the latter that the "adenoid" child is undernourished, anemic and often dull. Even among adults where neglected chronic obstruction persists the individual is very apt to be cachectic.

It follows, therefore, that by simple reason we must not interfere with normal mucosal action by using nasal medication and surgery indiscriminately, and should seek to avoid agents that interfere with mucous secretion and ciliary activity. It might be well here to mention the common imposition put upon the mucous membrane by the dry and central heating units which are prevalent throughout the country.

Adenoidectomy, when indicated, is of utmost importance for a child's normal development. It is the striking clinical improvement in the physical and mental development of a mouth-breathing child who has been freed of nasal obstruction that most clearly brings home the value of humidified breathing; and that means normal nasal breathing.

The most frequent complication of intranasal disease is sinusitis which may be purulent; cystic, as with polyps; allergic and mixed types.

In the acute purulent forms the offending organism is most often the streptococcus or the pneumococcus. In the chronic forms the organism usually responsible is the staphylococcus aureus and the staphylococcus albus. It is well to remember these if chemotherapy reaches a stage where it will benefit sinusitis; and that is a most probable thing.

Sinusitis arises from vasomotor abnormalities that cause anemia and change in the mucous covering of the membranes; interference with ciliary movements whether due to toxins, drugs or drying action; mechanical blocking, and unfavorable environmental contacts or conditions.

The following are some important fundamentals: 1. There seldom occurs an isolated infection of one sinus alone. Sinuses belonging to the anterior group are generally affected together; likewise the posterior group. 2. Pain is relatively rare in inflammation of the sinus with the exception of the frontal. 3. Profuse mucopurulent discharge accompanying a coryza is positive evidence of an acute sinusitis, and intermittent purulent discharge is characteristic of chronic sinusitis. 4. A considerable postnasal discharge is usually characteristic of infection of the posterior group.

The diagnosis of acute sinusitis is made by the signs and symptoms of profuse mucopurulent discharge; functional blocking of the nasal passages; pain or discomfort, and a general below par feeling. There is usually a presentation of the discharge at the ostea opening after the nasal cavity has been cleansed and shrunk. Direct irrigation may be performed and the character of the returns noted. Transillumination is often useful but is usually unreliable.

The patient with chronic sinusitis complains of frequent "head colds", an abnormal

amount of nasal discharge; intermittent blocking of some degree of the air passages, a run down feeling. He is often suffering from extension of the infection to the trachea and bronchi. Here, X-ray is particularly important as a diagnostic adjunct. And here, too, one must always bear in mind the possibility of allergy.

Simple medical and surgical principles of treatment are the most efficacious in the treatment of sinusitis, as in all diseases. 1. Remove the cause. 2. Drain enclosed pus where possible. 3. Remove diseased tissue when it is beyond repair, and above all. 4. Preserve as much useful function as possible.

The usual classification of otitis media is the acute purulent, acute catarrhal, chronic purulent and chronic catarrhal forms.

Acute otitis media almost invariably follows a coryza of one kind or another or develops from sudden water pressure in the nose of swimmers who dive. Its development is assisted by abnormalities at the nasal end of the eustachian tube, marked deviation of the septum and enlarged turbinates.

The organism is usually the pneumococcus or streptococcus. Outstanding symptoms are severe pain and diminution of hearing in the affected ear. There is usually elevation of temperature. The tympanic membrane, when the physician gets to see it, is usually beefy red and is probably bulging.

The sensible treatment at this stage is a clean paracentesis with a sharp knife. To temporize is to invite rupture of the membrane and a consequent long drawn out infection or extension to the mastoid, brain, and meninges.

There is apt to be a change in the whole picture when the pneumococcus 111 is the offending organism. This organism is often insidious in its attack. Pain may be only moderate in degree and the appearance of the ear drum is apt to be misleading.

When drainage is established free passage must be assured by thorough swabbing timed to keep ahead of too much accumulation of pus.

Acute catarrhal otitis media results from obstruction at the orifice or within the eustachian tube, wherein negative pressure occurs with resulting retraction of the ear

drum. A serous exudate may accumulate within the tube and enter the middle ear.

The usual symptoms are those of a feeling of fullness in the ear, low-grade discomfort or pain, slight deafness and possible tinnitus. There are usually no febrile signs or symptoms. The ear drum is most often found to be retracted with the handle of the malleolus showing very prominently. When serum is present in the middle ear no retraction will be seen but the drum will often show a low grade hyperemia that is striated in appearance. Treatment is directed to the maintenance of patency of the eustachian tube. If the drum is retracted the tube may be inflated causing prompt cessation of symptoms. By keeping the nasal mucosa well shrunk this condition will usually disappear in a few days unless there is a bad stricture or some encroachment at the nasal orifice of the tube. Such a condition can be determined very satisfactorily by the use of the nasopharyngoscope.

Most chronic purulent otitis begins during childhood as a sequel of acute purulent otitis media. The reason for its chronicity is a moot question. It may be due to persistence of a hyperplastic mucosa, or to the development of purulent pockets and cysts in the mucosa with formation of granulation tissue.

The signs and symptoms are those of intermittent or continuous aural discharge, and some loss of hearing.

The non-dangerous type will show a central or paracentral perforation inferiorly and anteriorly as a rule. This area is near the entrance to the tympanic cavity of the eustachian tube. Here there is usually an increase in discharge during a coryza.

The dangerous type will show perforations that are posterior and marginal. Epithelium is apt to grow through the perforation into the tympanic cavity causing erosion of the bony wall and surrounding structures, with the retention of foul pus, often under pressure. Complications may occur heralded by such symptoms as pain and headaches, vertigo and fever. The possible complications are mastoiditis, brain abscess, epidural abscess, meningitis, lateral sinus thrombosis and

Continued on page 173



GARL H. STEVENS, M. D.

President Maine Medical Association

1942 - 1943

The President's Page

To the Members of the Maine Medical Association:

The 90th Annual Session of the Maine Medical Association at Poland Spring proved itself to be a very interesting and instructive session. There was a total registration of 484, and of that number 287 members of our Association were present. Of the 197 guests 130 were wives of our members. The total registration shows an increase of 22 over that of 1941 at York Harbor. Twenty-one commercial exhibitors displayed up-to-the-minute items of interest to the profession.

The Official Program, as arranged by the Scientific Committee, Currier C. Weymouth, M. D., Farmington, Chairman, was a masterpiece of Maine Medical programs. The members of that committee are to be congratulated upon their accomplishment, and deserve the thanks of all officers and members for their untiring efforts in making the 90th session a complete success. The delegates from the County Societies were present in goodly numbers and attended faithfully to their duties; the first session of the House of Delegates meeting at 4.30 P. M. on Sunday. That evening the guest speaker, Rev. George W. Shepherd, of Boston, thrilled his audience when he spoke before a large group taking for his subject, "The Battle for Freedom in China and India."

Monday and Tuesday mornings were devoted to five sectional conferences. These conferences were arranged and participated in by Maine doctors and discussed by prominent out-of-state specialists. All of the conferences were well attended, the subjects presented were timely and the discussions interesting. At the afternoon scientific sessions on the above days, very practical and instructive papers and lectures were delivered by prominent out-of-state specialists and teachers of Medicine and Surgery. Members of our Association who were unable to attend these conferences and scientific sessions certainly missed an excellent Post-Graduate Course which was intensive and all too short.

On Monday evening Philip D. Wilson, M. D., of New York City, held the closest attention of a large audience when he presented in a most interesting manner his subject: "Surgical War Experiences in England." Doctor Wilson spoke chiefly concerning the treatment of Air-Raid Casualties and of the work of the American Hospital in Britain, emphasizing his talk by the use of lantern slides and motion pictures of actual scenes in England. Doctor Wilson's presentation was most timely and very helpful to any person who may find himself faced with the responsibility of treating air raid casualties, and especially compound fractures.

On Tuesday evening at the Annual Banquet Walter G. Phippin, M. D., of Salem, Massachusetts, a member of the Committee on Medical Preparedness of the American Medical Association, and Chairman of the First Corps Area, Procurement and Assignment Service, very clearly informed the members of the fact that we are at war and of the duties we as physicians, of all ages, must perform in this great emergency. Doctor Phippen explained in detail the medical needs of the armed forces and informed us that if these needs are not met voluntarily then other methods will be used to supply these needs.

So much for a brief resume of the high-lights of our 90th session. At this time I wish to inform the members of our Association who were not at Poland Springs that the House of Delegates adopted the recommendation of the Council

that, because of war conditions, the Fall Clinical Session will be omitted this year. I also call your attention to the fact that all standing and special committees have been appointed and suggest that the members of these committees meet as early and as frequently as practicable during the coming year. As to the next Annual Session the time and place was left to the Council by the House of Delegates, as has been the custom for some years.

I urge all County Secretaries to arrange for regular County Meetings as usual, that those of us who are available, whether in or out of uniform, may have the opportunity to get together, to confer concerning the medical home front, to secure as much concentrated dosage of Post-Graduate teaching as possible, to stimulate our desire to keep informed by proper reading of medical literature, and in other ways endeavor to keep our County Societies as active and helpful to their members as in normal times. The strength and usefulness of our State Association is dependent upon good County Meetings and strong County Societies.

As to new officers in your Association, your members have elected Stephen A. Cobb, M. D., of Sanford, as President-Elect. Doctor Cobb has served you well as a member of your Council for three years, the last year as Chairman. He served abroad in World War I as a Captain. Since that time he has served on many of your important committees and was recently commissioned a Lieut.-Colonel. We are fortunate in having such a well qualified man as Doctor Cobb as President-Elect in these unusual times.

The First District will have E. Eugene Holt, M. D., of Portland, as Councilor, a man thoroughly familiar, not only with the First District but with the needs of your Association.

The Second District will be well cared for by Currier C. Weymouth, M. D., of Farnington, who was elected Councilor for that district.

The Third District Councilor, C. Harold Jameson, M. D., of Rockland, was re-elected to 1944 to fill the unexpired term of William Ellingwood, M. D., deceased.

Under the Chairmanship of Oscar F. Larson, M. D., of Machias, your Council will work for the future interest of your Association.

Thomas A. Foster, M. D., of Portland, was re-elected Delegate to the American Medical Association for two years. All who heard Doctor Foster's report of the 1942 session at Atlantic City and those who read it, in a later issue of the JOURNAL, will endorse the re-election of Doctor Foster for this important appointment.

Frederick R. Carter, M. D., was re-elected Secretary-Treasurer of the Association. Doctor Carter was also elected Editor of THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION. Doctor Carter replaces Frank H. Jackson, M. D., of Houlton, who has rendered several years of faithful and efficient service as our editor.

The coming year will, no doubt, be a strenuous one for all members of our profession. Whether in or out of uniform all Americans are in this war and we, of the medical profession, must do our utmost to hasten an allied victory.

CARL H. STEVENS, M. D.,
President Maine Medical Association.

P. S. Please read addresses of McNutt, Lahey, and Rankin, in the June 20, 1942, issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

C. H. S.

Maine Medical Association Officers Elected

at the

90th ANNUAL SESSION

POLAND SPRING

JUNE 21, 22, 23, 1942



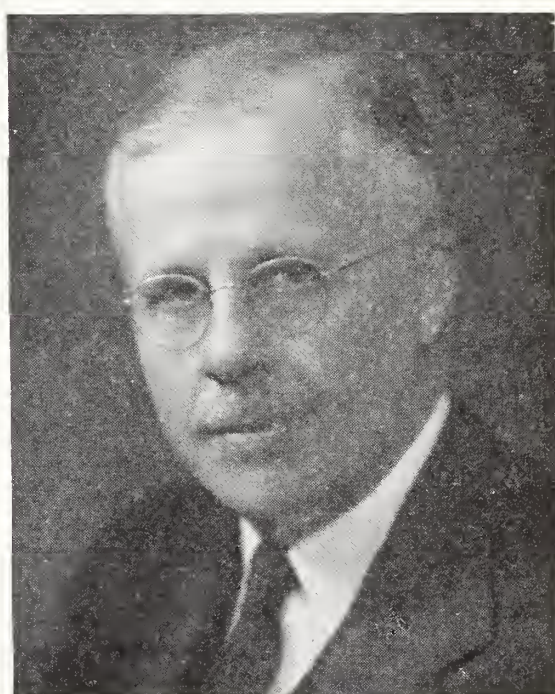
Stephen A. Cobb, M. D.
Sanford
President-elect



E. Eugene Holt, M. D.
Portland
Councilor First District, 1945



Currier C. Weymouth, M. D.
Farmington
Councilor Second District, 1945



C. Harold Jameson, M. D.
Rockland
Councilor Third District, 1944

Editorials

Medical Officers Needed Now

All of you who were present at the annual dinner of the Maine Medical Association, on June 23rd, and heard Dr. Walter G. Phippen, of Salem, Massachusetts, Chairman, First Corps Area, Procurement and Assignment Service, can more fully appreciate the need for medical officers in the Army of the United States. You can also appreciate that now is the time to volunteer, not one month or six months from now. You also *know* that if a sufficient number of medical officers are not obtained by this means, there is every indication that more drastic measures will be taken to secure them.

The response has been slow, due to some extent to the fact that many physicians have been under the erroneous impression that the Procurement and Assignment Service enrollment forms are equivalent to applications for commissions, and because information contained on these forms requires a considerable period to be tabulated and made available for use by the recruiting personnel of the armed forces.

Recruiting boards for medical officers have been established in all states. The office of

the Maine Medical Officers' Recruiting Board is located at 31 Western Avenue, Augusta. These boards, working in conjunction with the Procurement and Assignment Service, are authorized to commission qualified physicians in the Medical Corps of the Army, who have been declared "available" by the state or local officers of the Procurement and Assignment Service. When commissioned the physicians will be assigned to active duty within a few weeks following application. Applications for commissions from graduates of unapproved and foreign medical schools will be forwarded by the boards to the Office of the Surgeon General for individual consideration.

The Procurement and Assignment Service is a governmental agency acting in an advisory capacity to the armed forces, and determining whether physicians are "available" or "essential"; *its enrollment forms are not applications for commissions.*

Apply for your commission today, to your Medical Officers' Recruiting Board, and do your part to make Maine's response to the call for volunteers 100%.

The President-elect

The Association on the afternoon of June 22nd, 1942, assembled in General Session during the 90th annual session at Poland Spring, elected Stephen A. Cobb, M. D., of Sanford, President-elect. The Association is honored in bestowing this honor upon one who has proved himself equal to the duties which will be his in these critical times.

Doctor Cobb was born in Gardiner, Maine, December 9, 1887, the son of Stephen Aratas and Hattie Chadwick Cobb. He was graduated from Gardiner High School in 1905, Bates College in 1909, and Harvard Medical School in 1914. He started his practice in Sanford in 1915, and has continued there to date with the exception of 1918 and 1919, when he served in World War I at Camp

Jackson and Greeue, and as Captain at Base Hospital 54 in France. He married Ruby Varnum Wood of Bowdoinham, and they have one daughter.

He has recently been commissioned a Lieutenant Colonel, and is Chief of the Surgical Service in the 67th General Hospital, the unit which has been sponsored by the Maine General Hospital.

Doctor Cobb has served the Association for seven years; three as a member of the Scientific Committee, one year as Chairman of this Committee, and as Councilor for the First District for one term of three years, the last of these as Council Chairman.

We extend to Doctor Cobb our congratulations and best wishes.

*The Procurement of Physicians**

"On June 8, I described to the American Medical Association at its Atlantic City meeting the acute need for physicians for the military services. I pointed out how far the recruitment of physicians lagged behind expected quotas. In conclusion, I stated bluntly the fact, which could not have been evaded by any analysis, that unless voluntary recruitment progressed more rapidly some more rigorous form of selective service must be resorted to.

"Those facts were necessary in order to permit the medical profession to diagnose its own case. And the case is urgent; physicians are members of what is probably the most indispensable of all professions. Despite the harshness of the facts and the bluntness with which I had to state them, I felt that the profession should be informed.

"In fairness to the recruitment record of many of our states, it seems in order at this time to give the profession some further idea of how its problem is distributed. The failure of a sufficient number of physicians to volunteer for military service is not spread thinly over the whole country. There is an acute lag in certain populous states. Other states have supplied nearly all that they should supply.

"We need more than twenty thousand additional physicians by the end of this year. But eight states—New York, Illinois, California, Pennsylvania, Massachusetts, New Jersey, Michigan and Ohio—should account for nearly sixteen thousand of that shortage.

"By contrast, sixteen states have fewer than a hundred physicians to go to reach the total number they should supply. In order not to deplete unduly available medical service in those areas, we are asking that the Medical Officers' Recruiting Boards be withdrawn and that further enlistments from those areas be then discouraged except in the case of the men under 37 in the urban areas. Those states are Alabama, Arizona, Delaware, Idaho, Louisiana, Mississippi, Montana, Nevada, New Mexico, North Dakota, South Carolina, South Dakota, Utah, Vermont, Wyoming and Virginia.

"The acute problem for the next few months for those states is an equitable distribution of medical service within their borders. This will avoid the necessity for any consideration of plans to allocate doctors from other states to meet civilian needs.

"More than one hundred and thirty thousand physicians have returned their registration forms to the Roster for Scientific and Technical Personnel. Those forms are now being processed. When that work is complete we shall be able to give the profession a more comprehensive report on the relation of available medical service to wartime needs.

"The seriousness of the deficit in the number of physicians available for armed forces should not be under-estimated. The need must be met. It will be met by one method or another. Neither must we under-estimate the serious drain this puts on available medical services in civilian communities. It will mean long hours and hard work—sacrifices which will multiply the deep debt that every community owes to its physicians.

"It cannot be met simply by multiplying hours of the physicians who are left. There will be a real need to exercise every possible means for minimizing unnecessary medical services in order that the real needs may be met.

"It is my belief that the lag in recruitment has been due chiefly to the fact that the individual physician has not realized the genuine urgency of the need. Measures must be taken which will bring those home to every individual. This means that there will have to be some education of the general public. Preventable illness must be reduced to a minimum. Unreasonable demands on the physician's time must be reduced to a minimum. Thus only may available medical service adequately cover the needs."

An editorial in the same issue of *The Journal* says:

"Elsewhere in this issue appears a statement by Mr. Paul V. McNutt, chairman of the War Manpower Commission, under which the Procurement and Assignment Service for Physicians, Dentists and Veterina-

* Reprint of Statement for *The Journal of the American Medical Association* by Paul V. McNutt, Chairman of the War Manpower Commission, as published in the June 27th issue, and Editorial in the same issue.

rians functions, relative to the urgent need for physicians for the armed forces at this time. Mr. McNutt recognizes the indispensable character of the physician for both military and civilian needs. He makes clear that eight states—New York, Illinois, California, Pennsylvania, Massachusetts, New Jersey, Michigan and Ohio—must supply most of the physicians needed for the armed forces at this time. Some of the states have already supplied so many physicians in proportion to their total medical population that recruitment in those states is to be discontinued now or in the near future.

“The medical profession cannot be accused of failure to play its part in any way in relationship to the war effort. Everyone who is participating in the recruitment of physicians recognizes that there have been what are now called innumerable ‘bottle necks’ to be cleared away from time to time as the effort has progressed. More than one hundred and thirty thousand physicians have already returned the registration blanks sent out by the National Roster of Scientific and Technical Personnel. These replies have been coded, and punch cards have been made for them. Any physician who has failed to receive an enrollment form from the National Roster should write at once to the National Roster of Scientific and Technical Personnel, in care of War Manpower Commission, 916 G Street Northwest, Washington, D. C., requesting that an enrollment form be sent to him.

“Shortly there will be sent to every physician who indicated that service in the United States Army Medical Department would be his first choice or his second choice a letter as follows:

WAR MANPOWER COMMISSION

Procurement and Assignment Service
Washington

Procurement and Assignment Service for
Physicians, Dentists and Veterinarians

Dear Doctor:

You have indicated your willingness to serve the Nation in this great emergency. The Procurement and Assignment Service of the War Manpower Commission now calls on you to enter the Service. Please apply at once for a commission. You have been selected from among the available physicians in your community by a process that is believed to be fair and impartial.

Complete and mail the enclosed post cards immediately. The Office of the Surgeon General or his representative will provide the necessary application forms and authorize the time and the place for your physical examination.

Do not take any definite action regarding your practice until you receive specific instructions from the War Department. Each physician who is commissioned is routinely allowed fourteen days to wind up his affairs after receipt of orders from the War Department.

The rapidity of recruitment now in effect makes this communication necessary and requires your full coöperation. Please do not delay.

Sincerely yours,

FRANK H. LAHEY, M. D.,
*Chairman, Directing Board,
Procurement and Assignment Service.*

Enclosures
No. 92 6/22/42.

“With this letter will be enclosed two postal cards, which will secure prompt action in relationship to the receipt of application forms and proper notification of the action taken in the responsible agencies in Washington.

“The needs of the armed forces for physicians are immediate; unquestionably those needs will be met. Physicians who are under 37 years of age and who have been classified by the Selective Service are susceptible to re-study of their situation and reclassification as these needs become more and more urgent. The medical schools, hospitals, public health departments, industrial concerns, in fact every agency utilizing the services of physicians, must coöperate by restudying the men classified as essential, so that only those who are actually essential in the most restricted sense of that word will be retained. All others must be made available as needed for the service of the nation in the armed forces.

“The Procurement and Assignment Service for Physicians, Dentists and Veterinarians was established to aid in the proper assignment of physicians in times like these to the tasks for which they are best fitted. Already this agency has been of immense value in the principles that have been adopted relative to the maintenance of medical education, hospital service and civilian health, as well as the study and evaluation of men for the Army and Navy medical departments. As the needs become more acute and the number of men available less, their task assumes increasing importance. The War Manpower Commission is now the agency under which

Continued on page 173



HERBERT E. LOGKE, *Attorney*

Herbert E. Locke, Attorney, of Augusta, legal counsel for the Maine Medical Association for many years, was elected an honorary member of the Association at the First Meeting of the House of Delegates in session June 21, 1942, during the 90th Annual Session, at Poland Spring. Thus Mr. Locke becomes the Association's first non-medical honorary member; an honor well deserved.

Nominating Committee Report

The report of the Nominating Committee as presented and accepted at the Second Meeting of the House of Delegates at the 90th Annual Session of the Maine Medical Association at Poland Spring, Maine, June 22, 1942.

Nominating Committee

C. Harold Jameson, M. D., Rockland, Chairman.
 Frank A. Smith, M. D., Westbrook.
 Merrill S. F. Greene, M. D., Lewiston.
 Raymond L. Torrey, M. D., Searsport.
 Raymond E. Weymouth, M. D., Bar Harbor.
 Harvey C. Bundy, M. D., Milo.

Standing Committees

Scientific Committee

Eugene E. O'Donnell, M. D., Portland, Chairman.
 Forrest B. Ames, M. D., Bangor.
 Roland L. McKay, M. D., Augusta.
 Harvey C. Bundy, M. D., Milo.

Committee on Medical Education and Hospitals

Adam P. Leighton, M. D., Portland, Chairman.
 Allan Craig, M. D., Bangor.

Medical Advisory Committee

Carl M. Robinson, M. D., Portland, Chairman.
 Allan Woodcock, M. D., Bangor.
 Stephen A. Cobb, M. D., Sanford.
 Willard H. Bunker, M. D., Calais.
 C. Harold Jameson, M. D., Rockland.
 Frank H. Jackson, M. D., Houlton.
 Forrest B. Ames, M. D., Bangor.
 The Secretary, ex-officio.

Legislative Committee

The President, ex-officio.
 The President-elect, ex-officio.
 Frederick R. Carter, M. D., Augusta, Chairman.

Public Relations Committee

R. V. N. Bliss, M. D., Bluehill, Chairman.
 Frederick T. Hill, M. D., Waterville.
 Henry C. Knowlton, M. D., Bangor.
 Harold E. Small, M. D., Fort Fairfield.
 Edward M. Cook, M. D., York Harbor.

Cancer Committee

Mortimer Warren, M. D., Portland, Chairman (One year).
 Magnus Ridlon, M. D., Bangor (Two years).
 William Holt, M. D., Portland (Three years).
 Arthur H. McQuillan, M. D., Waterville. (Four years).
 Julius Gottlieb, M. D., Lewiston (Five years).

Committee on Social Hygiene

Richard P. Jones, M. D., Belfast, Chairman.
 Carl E. Blaisdell, M. D., Bangor.
 Oscar R. Johnson, M. D., Portland.

Publicity Committee

Frederick R. Carter, M. D., Augusta, Chairman.
 Carl H. Stevens, M. D., Belfast.

Financial Advisory Committee

George L. Pratt, M. D., Farmington, Chairman (1944).
 Warren E. Kershner, M. D., Bath (1943).
 Foster C. Small, M. D., Belfast (1945).

Delegate to the American Medical Association for Two Years (1943-1944)

Thomas A. Foster, M. D., Portland.

Special Committees

As appointed by the President, Carl H. Stevens, M. D., Belfast, in accordance with the By-Laws, Chapter V, Section 1.

Committee on Graduate Education

Frederick T. Hill, M. D., Waterville,
Chairman.

Julius Gottlieb, M. D., Lewiston.
E. Eugene Holt, M. D., Portland.
Frank H. Jackson, M. D., Houlton.
LeRoy H. Smith, M. D., Winterport.
James Carswell, M. D., Camden.
Thomas A. Foster, M. D., Portland.

Tuberculosis Committee

Edward A. Greco, M. D., Portland, Chair-
man.

Loren F. Carter, M. D., Presque Isle.
Charles D. Cromwell, M. D., Fairfield.
Lester A. Adams, M. D., Hebron.
George E. Young, M. D., Skowhegan.
James W. Laughlin, M. D., Newcastle.
Norman E. Cobb, M. D., Calais.
Francis J. Welch, M. D., Portland.

Committee on Maternal and Child Welfare

Albert W. Fellows, M. D., Bangor, Chair-
man.

Clair S. Bauman, M. D., Waterville.
LeRoy C. Gross, M. D., Auburn.
Alice A. S. Whittier, M. D., Portland.
Virginia C. Hamilton, M. D., Bath.
Guy E. Dore, M. D., Guilford.
Thomas A. Foster, M. D., Portland.

Committee to Survey Hospital and Medical Care

S. Judd Beach, M. D., Portland, Chair-
man.

J. Calvin Oram, M. D., South Portland,
Secretary.

Edward M. Cook, M. D., York Harbor
(First District).

George L. Pratt, M. D., Farmington (Sec-
ond District).

Warren E. Kershner, M. D., Bath (Third
District).

Edward H. Risley, M. D., Waterville
(Fourth District).

Willard H. Bunker, M. D., Calais (Fifth
District).

Storer W. Boone, M. D., Caribou (Sixth
District).

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* As appointed by the Council at a meeting held June 23, 1942, at the Poland Spring House, and approved by the President, Carl H. Stevens, M. D.

Necrologies

William Delue Anderson, M. D.

1881-1942

William Delue Anderson, M.D., aged 61, died suddenly at his home in South Portland, on Sunday, March 1, 1942.

Doctor Anderson was born on February 20, 1881, the son of John W. and Helen E. Anderson of Portland, Maine. He attended the schools of Portland and graduated from the Portland High School. He then entered the Drug Business, which he followed very successfully for a few years. In 1911 he decided to enter Bowdoin Medical School, and after his graduation in 1915, he was appointed an intern at the Maine General Hospital. Leaving the Maine General Hospital in 1916, he began the practice of his chosen profession in Portland, being, up to the time of his death, a conscientious and beloved physician and surgeon.

Doctor Anderson was an instructor in anatomy at the Bowdoin Medical School for several years, and served as house physician at St. Luke's Hospital in New York, also having taken post-graduate

work at the same hospital. He served as medical examiner of Cumberland County from 1922-1926.

Doctor Anderson was an active member of his Medical Societies, both local and national, being a member of the Association for the Study of Goitre, a Fellow of the American College of Surgeons, and also of the American Medical Association.

Doctor Anderson was a very active and faithful member in the Masonic Bodies. He was a 32nd Degree Mason and a member of the Shrine. He will be greatly missed by these Brother Masons, as well as by his brother practitioners.

Doctor Anderson is survived by his widow, the former Leo Elliott of Portland, and a brother, George, of Manchester, New Hampshire.

The Members of this Medical Society feel deeply the loss of its member, Doctor William D. Anderson.

GEORGE A. TIBBETTS, M. D.

ISSAC M. WEBBER, M. D.

PHILIP P. THOMPSON, M. D.

Herbert A. Owen, M. D.

1871-1942

Herbert A. Owen, M.D., aged 71, widely known physician, died at his home in Buxton, on Sunday, June 7, 1942, of heart disease, with which he had suffered for some time.

Doctor Owen was born at Buxton, Maine, on March 10, 1871, the son of Mark and Matilda Harmon Owen. He was graduated from Bowdoin College in 1893, and from Rush Medical College in 1898. He practiced in Chicago, Illinois, and Pentogo, Michigan, until thirty-three years ago, when he returned to Buxton.

He was a member of the York County Medical Society, the Maine Medical Association, and the American Medical Association, and of the First Parish Congregational Church, Buxton Lower Corner, and the West Buxton Lodge of Masons.

Doctor Owen is survived by his widow, the former Isadore Macurda of Wiscasset, a stepdaughter, Mrs. Isabel Conant of Gorham, and three sisters, Mrs. Venetta Sanborn of Portland, Mrs. Anna Sampson of Gorham, and Mrs. Ellen Hadlock of Whitman, Massachusetts.

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County News and Notes

Cumberland

The 165th meeting of the Cumberland County Medical Society was held at the Eastland Hotel, Portland, Maine, on Friday, May 29, 1942.

The meeting was called to order by Roland B. Moore, M. D., President.

Admitted to membership were: Daniel Lovelace, M. D., Gorham; James B. Morrison, M. D., Westbrook; and Lawrence W. Conneen, M. D., Portland.

Resolutions on the deaths of William D. Anderson, M. D., and Charles B. Sylvester, M. D., were adopted by the Society.

The speaker of the evening was Paul Dudley White, M. D., of Boston, whose subject was *Status of Heart Disease in 1942*. Doctor White's paper was discussed by Drs. Elton R. Blaisdell, Ralf Martin, and Langdon T. Thaxter.

The meeting was preceded by a clinic at the Maine General Hospital at 5.00 P. M., at which the following papers were presented:

1. *Diphtheroid Vulvo Vaginitis*, Leon Babalian, M. D.
2. *Cancer of the Rectum*, Eaton S. Lothrop, M. D.
3. *Paroxysmal Ventricular Tachycardia*, Elton R. Blaisdell, M. D.
4. *Gastrostomy*, Carl M. Robinson, M. D.
5. *Four Fractured Knees*, Orthopedic Service.
6. *Bilateral Kidney Disease*, Urological Service.

EUGENE E. O'DONNELL, M. D.,
Secretary.

Oxford

A regular meeting of the Oxford County Medical Society was held at Bethel Inn, Bethel, Maine, Wednesday, June 3, 1942.

At the business meeting P. L. B. Ebbett, M. D., of Houlton, Maine, President of the Maine Medical Association, gave a general talk on Association affairs. Wedgwood P. Webber, Capt., M. C., gave an interesting talk on the Army and Navy.

George Geyerhahn, M. D., of Lovell, was elected to membership.

Following the dinner, Elton R. Blaisdell, M. D., and Langdon T. Thaxter, M. D., of Portland, presented an interesting and instructive talk on the subject, *Low Substernal and High Epigastric Pain. Problems in Diagnosis*.

J. S. STURTEVANT, M. D.,
Secretary.

Piscataquis

A meeting of the Piscataquis County Medical Association was held at the Mayo Memorial Hospital, Dover-Foxcroft, Maine, May 21, 1942.

It was unanimously voted that R. H. Marsh, M. D., of Guilford, be recommended for the Fifty-Year Medal and Honorary Membership in the Maine Medical Association.

It was voted that we again have a special summer meeting at Moosehead Lake, and that we invite Aroostook, Penobscot, Somerset, Kennebec, Hancock, and Waldo Counties to meet with us.

Our guest speaker was Brig. Gen. John G. Towne, M. C., of Waterville, State Chairman of the Procurement and Assignment Service of Maine. General Towne gave us a most instructive talk regarding the Procurement and Assignment Service. Many personal questions were asked and answered. I believe that, having heard General Towne, there is no question but that the members of the Piscataquis County Medical Society will do their duty by their Country. The next Councilor's report will probably show a fair percentage of the membership of the County Society in the service.

Thirteen members were present. One of our members is already in the service. Thus there were present 13 of a possible 17. A little better than 79% attendance.

Respectfully submitted,

N. H. NICKERSON, M. D.,
Secretary.

Members in Military Service

*Members Sworn Into United States Army
by First Lieut. Richard Maxant,
U. S. A., at the 90th Annual
Session at Poland Spring*

Captain Frank B. Bull, Gardiner, Maine
(Kennebec County Medical Association)

Captain Harry M. Wilson, Bethel, Maine
(Oxford County Medical Society)

Captain Clarence Emery, Jr., Bangor, Maine
(Penobscot County Medical Association)

First Lieutenant John B. Curtis, Milo, Maine
(Piscataquis County Medical Society)

Captain Paul S. Hill, Jr., Saco, Maine
(York County Medical Society)

New Members

Cumberland

Lawrence W. Conneen, M. D., 131 State Street,
Portland, Maine.

Daniel Lovelace, M. D., Gorham, Maine. (By
transfer from the Connecticut State Medical
Society.

James B. Morrison, M. D., 582 Main Street, West-
brook, Maine.

Oxford County

George Geyerhahn, M. D., Lovell, Maine.

Change of Address

Donald H. Daniels, M. D.

From: 5 Bramhall Street, Portland, Maine

To: 974 Sawyer Street, South Portland, Maine

Clement P. Wescott, M. D.

From: 1600 Forest Avenue, Portland, Maine

To: 201 State Street, Portland, Maine

Notice

Decontamination of Eyes After Exposure to Lewisite and Mustard

Since publication of the Office of Civilian Defense handbooks, "First Aid in the Prevention and Treatment of Chemical Casualties" and "Protection Against Gas," further experience has shown that the 2% solution of hydrogen peroxide recommended for the treatment of eyes following Lewisite burns may be injurious if used undiluted. The Chemical Warfare Service now recommends a single instillation in the eyes of a 0.5% solution of hydrogen peroxide as soon as possible after contamination with Lewisite. This solution may be prepared by diluting one part of a 2% solution with three parts of water, or one part of a 3% solution with five parts of water. The solution usually found in drugstores is the U. S. P. strength of 2.5 to 3.5 per cent hydrogen peroxide. A 0.5% solution of potassium permanganate has also been found effective as an eye instillation following exposure to Lewisite.

In planning decontamination stations, the Medical Division, Office of Civilian Defense, recommends that provision be made near the entrance of the second or shower room for the irrigation of the eyes of contaminated persons. The schematic sketch of a decontamination station in the Office of Civilian Defense publications mentioned above shows the irrigation of eyes in the dressing room, whereas this should be carried out in the second or shower room before the bath is given. Delay until the casualty reaches the dressing room will result in more serious injury to eyes which have been contaminated with mustard or Lewisite.

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Rhinology and Otology—Continued from page 159

acute labyrinthitis. It is always a potentially dangerous disease so that in the event of any suspicion of complications a modified radical mastoidectomy should be performed.

In chronic catarrhal otitis media the patient complains of long standing diminution in hearing and tinnitus, with relapses and remissions. Head colds often intensify the condition. Deafness usually does not become total.

The drum is seen to be retracted and dull. Repeated inflation of the eustachian tube may help some. For the tinnitus, intramuscular injection of prostigmine as is usually practiced, is of very doubtful value.

The most frequent cause of deafness and tinnitus is otosclerosis. Here we will usually obtain a family history of deafness. The ear drum will most often appear normal. Total deafness may result. Repeated pregnancies intensify this type of deafness. No treatment is satisfactory. Lip reading education should be advised early. Hearing aids are of value.

Finally, it is important to remember the normal function of the mucous membrane of the nose and to direct nasal medication accordingly. Successful treatment of diseases of the nose, paranasal sinuses and the ears depends on a basic knowledge of the anatomy and physiology of these parts coupled always with the employment of simple common sense medical and surgical principles.

Procurement of Physicians—Continued from page 166

the Procurement and Assignment Service functions. Through the activities of various subcommittees such problems as maintenance of essential staff members for hospitals, the determination of adequate medical service for the civilian population needs, of adequate personnel for urban, county, state and national health departments and the needs of industry are being given special consideration. The medical profession, as Mr. McNutt has repeatedly emphasized, has in these activities shown the way to scientific study and allocation of manpower in this emergency.”

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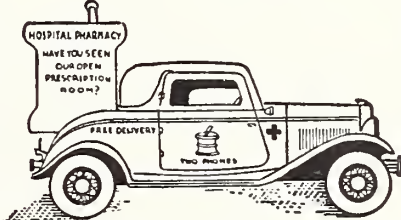
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The Journal of the Maine Medical Association

Volume Thirty-three

Portland, Maine, August, 1942

No. 8

An Old-Fashioned Medical School

Presented By

WALTER E. TOBIE, M. D.

Thursday, October 16, 1941

Cumberland County Medical Society

The seventy-seventh course of the Medical School of Maine at Bowdoin College, as it was then titled, commenced on January 7, 1897, and continued twenty-four weeks, ending June 25. Three such courses were required for graduation, but students were expected to have studied for three full years, generally with a preceptor, or at the Portland School for Medical Instruction in the summer, which answered this particular requirement. The original plan of study with a preceptor was undoubtedly of considerable value. In the case of a student in the country, he registered with a physician, read his books, accompanied him somewhat on his calls, and rendered assistance about his house and office, which assistance I think occasionally included some care of the doctor's horses and carriages.

I think the specific requirements of this preceptor feature had slipped somewhat by 1897 and had become in many cases a perfunctory affair. A practicing physician would be accomodating enough to permit a

prospective student to register with him without demanding any particular attendance, and without checking the amount of study that he did, and sometimes even dated the beginning of his apprenticeship back in order to make out the three full years at the time of graduation. The catalog of that year and a number of subsequent years contained a list of students and preceptors, and there was frequent mention of the P. S. M. I., meaning, Portland School for Medical Instruction.

The technical requirements for matriculation were nominal, but on the whole adequate. A good English education including composition, natural philosophy and mathematics was required, but not Chemistry and Latin. Those who were graduates of high schools, normal schools and colleges, and those who had passed the entrance examinations into a college, were admitted on presentation of their diplomas or certificates. All others were required to pass an entrance examination which was held in the forenoon on Thursday, January 7. The examination was a fair one.

A very considerable proportion of the students of that year qualified in this manner, and these men, for the most part made good, for they had prepared themselves by careful study and showed up in their classes and at graduation as well as those possessing diplomas from high schools, seminaries and colleges. About a third of the class of that year qualified in this manner and of the group taking the examination, only one was thrown out.

As regards the students who entered by diploma, the requirements were exacting — in the catalog. They were supposed to present their diplomas at the time of matriculation, and probably did. The Dean of the school was Dr. Alfred Mitchell, Sr., of delightful memory, and he was wont to delegate the function of admission to his secretary, a most kindly old man named Metcalf, who on the entrance morning sat in a room on the second floor of Seth Adams Hall, received the diplomas and entered the names. The diplomas were brought in in round tin cylinders and I witnessed the function of registration with great awe. Undoubtedly the cylinders or boxes contained the diplomas, although I did not observe that dear old Metcalf ever opened a box to verify its contents.

By early afternoon the details of student admission had been completed, the examination papers had been carefully marked, the credentials carefully inspected, and an introductory lecture was to be delivered at three o'clock, as the catalog said, by Prof. Charles O. Hunt, M. D. This exercise was held in Memorial Hall and at this time of year the sun set early, and possibly there was some slight delay in starting, for I recall that Memorial Hall was rather inadequately lighted. It was not completely equipped with electricity. I think there were a number of sixteen-watt incandescent lamps around the walls, but the reader's desk had no such provision, so it was found necessary to install, temporarily, additional illumination. This consisted of a rather tall kerosene lamp of the pedestal variety which was brought in by the teacher of Greek of the college, Professor Woodruff. The professor had long been known by the sobriquet of "Whiskers"; not

an offensive epithet at all but a term of endearment applied by the "Lits", and a truly descriptive title. The audience had assembled when Professor Woodruff marched down the center aisle with becoming dignity, bearing aloft this kerosene lamp, but when he reached the reader's desk he encountered mechanical difficulties, for it was made with a marked slant and so he endeavored to level the lamp with a few adjacent textbooks. He was cheered by the assembled "Lits" but I am sorry to say that being only a Professor of Greek and not a master mechanic, his efforts were not crowned with success and another sterling character was called in in the person of Isaiah Simpson, also bewhiskered, who was superintendent of buildings and college carpenter. He gave this beacon a stable, level foundation, and Dr. Charles O. Hunt delivered his splendid, plain, practical talk, after which the students dispersed and Dr. Hunt returned to Portland.

The fees were seventy-eight dollars each for first and second courses, and fifty dollars for the third course, with a matriculation fee of five dollars and the graduation fee, including the diploma, was twenty-five dollars, so that the entire amount the school received from each student was two hundred and thirty-six dollars, plus small charges for materials used in the chemical laboratory and the actual cost of the dissecting material, which was not large.

Most of the students were in moderate circumstances, but some were very poor, and quite a good many had borrowed money to pay for their education. I made inquiries from an upper classman before I entered as to the amount of money required. He told me that a man should have for the three school years, with living expenses included, about fifteen hundred dollars, although some men got through on twelve hundred. I think, as a matter of fact, I paid about nineteen hundred, but I lived in a lavish manner, paying two dollars a week for my room and three dollars and twenty-five cents or three dollars and fifty cents a week for board. This amount also included two terms at the Portland School for Medical Instruction held at vacation time in Portland.

The manner in which students lived was

quite interesting. The residents of Brunswick had long been accustomed to rent rooms to medical students and the usual price was two dollars a week per man for one student or two in a room. Most of the men had room-mates. I tried it the first year but the second and third years roomed alone, still paying the two dollars. The apparent inconsistency in these rates is not explained. In those days twin beds were non-existent and the house-keeper could make up the double bed for two men about as easily as for one. We furnished our own kerosene for the lamps by which we studied, and bought our own wood or coal for the stove that heated the room.

For a time there were so-called eating clubs. Such a club would be made up of a number of students, ten, fifteen or perhaps twenty, who paid the expenses, pro-rated by a student steward who got his own board free. The lowest priced club was the Nutter Club and the charge was one dollar and seventy-five cents a week for twenty-one meals. It was possible for one to live at this rate; apparently some did, but I tried it for a while and then gracefully retired. I was not an epicure but really wanted something a little better than the kind and amount that was furnished at this bargain price of one dollar and seventy-five cents a week. I never knew what became of the steward of the Nutter Club after graduation. He should have become a hospital steward. What a hit he would have made (with the management).

It may be asked how the entrance requirements of our school compared with those of others, and I think we can fairly claim that on the whole they were as high as any, with a few notable exceptions. There were schools having requirements rather higher than ours, as cataloged, but I happen to know that some of them actually bid for students, offering to take them in under conditions, and such conditions were easily worked off or even forgotten if the classes were not too large and the student happened to be a fair prospect. On the other hand, there were a number of schools whose entrance requirements were lower than ours and our Dean, Dr. Alfred Mitchell, was disposed to refer to some of the rather low grade schools in southern cities as Botany Bay Institutions. He named them

thus in a spirit of jocosity, for harshness and unfairness was foreign to his nature.

Most of the school exercises were held in Seth Adams Hall near the apex of the delta. The building was not new and the lecture rooms were of a Gothic character. The one on the second floor was devoted to physiology, materia medica and the practice of medicine, and the one on the third floor was the particular, peculiar property of the departments of surgery and anatomy. These rooms were both constructed on the old-fashioned amphitheater plan, the upper room having a very steep tier of seats, so that students in the back rows looked down upon the lecturer.

In the pit of the surgical amphitheater was a revolving pedestal operating and demonstration table. This was a treasured relic; a memento of the justly famed surgical professor, William Warren Greene, who used it in his operative clinic and probably performed there some of the first thyroidec-tomies ever performed in the world. This table received yearly a coat of thick red lead paint, and the accumulated amount was so great that one could only estimate its original thickness. A life-size picture of William Warren Greene, beautifully executed by the old photographic and crayon process, adorned the wall, and this was the only attempt at ornamentation in the room. The room below had a similar portrait of a former professor of medicine, Dr. Robinson.

The rooms were in charge of an elderly man named Adam Booker, and every morning in the winter time Mr. Booker warmed them up by means of very large wood stoves, into which he fed great chunks of rock maple. This method of heating was adequate and more than adequate for the day, although it did not last over. There was no water system on the third floor, so no danger of freezing at night.

Mr. Booker rang a large hand bell at the beginning and closing of each hour, and kept the rooms as clean as he could. Smoking was not permitted, but the chewing of plug tobacco — Horse Shoe and B. L. Double Thick — was not uncommon, and since there were no spittoons the floor was not always immaculate. Fortunately, however, the rude characters who resorted to this form of solace and

comfort usually occupied the same seats, and after a few sessions they could locate their seats without difficulty, and by the same token these seats could be avoided by those not addicted to this reprehensible practice.

Most of the professors, lecturers and demonstrators lived in Portland and came in on the early Maine Central train which left that city at seven and reached Brunswick a little before eight, enabling them to reach the school building by eight and start their exercises by eight-fifteen. The distance from the Maine Central Station to Seth Adams Hall was not great and most of the professors walked up, although Dr. Israel T. Dana who was advanced in years, and Dr. Stephen H. Weeks who was no longer young, rode either in the two-horse carriage of Emery Crawford at twenty-five cents a haul, or the one-horse carriage of Charles Stone for ten cents.

Dr. I. T. Dana, who gave the course in Medicine, was seventy years old at the time, and looked it. He had begun to show slight symptoms of mental deterioration and it was understood that 1897 was to be his last year. He was a very splendid teacher and practitioner of medicine and had had a very finished medical education, including studies in Europe. He was a little deaf, a most unfortunate defect in a teacher, but he maintained throughout this year the suave, polished manner that had always characterized him and gave a perfectly splendid course for those who saw fit to avail themselves of his teaching. I am a little fearful that a few slid through without as much application to his instruction as it really merited, but this did not concern the entering class for we were not obliged to take this course and did not, although we occasionally went in to listen to his lectures.

Dr. Alfred Mitchell this year was Professor of Obstetrics and Diseases of Children, and was a most delightful, entertaining and instructive teacher.

Dr. Stephen H. Weeks was a splendid lecturer and teacher of Surgery of the old school. He covered the entire course including most of the branches now rated as specialties, and gave an operative clinic every Saturday morning. It was a remarkable affair in more ways than one.

Dr. Frederic Henry Gerrish was certainly the greatest teacher that I ever knew, and as a lecturer and classroom instructor on anatomy had, I believe, no equal in the country.

Dr. John F. Thompson taught Diseases of Women.

Dr. Franklin C. Robinson taught Chemistry in the Searles' Building on the campus, a new and well-equipped building at that time. He took men with no knowledge of chemistry, and many times with no aptitude for it, and in his course covering two years turned them out with all the knowledge of chemistry they needed to practice medicine. He was exceedingly popular and a most delightful man.

Dr. Charles O. Hunt taught Materia Medica and Therapeutics in a plain, practical, systematic manner. His course was complete and satisfied the most exacting.

Dr. Charles D. Smith gave lectures and instruction in Physiology. His course was not elaborate and might not be rated as complete at the present time, but I believe he gave enough, all that was needed, and for many, more than was wanted.

Dr. Addison S. Thayer, who later became Professor of Medicine and Dean of the School, was at this time serving in a very minor capacity. He was Assistant to the Chair of Pathology and Practice and I do not remember that he appeared at all during our first school year.

Dr. William Lawrence Dana was Demonstrator of Anatomy and Histology. He gave a quiz in Osteology the first part of the school year and died suddenly just as he was inaugurating the dissecting term. His place was taken by Dr. Alfred King.

Dr. Willis Bryant Moulton gave Clinical Instruction in Diseases of the Eye and Ear. Two men came from away and gave short courses; Hon. Lucilius Alonzo Emery in Medical Jurisprudence and Dr. Albert Roscoe Moulton in Mental Diseases.

In 1898 changes in the school were as follows: Dr. Alfred Mitchell became Professor of Medicine, Dr. Charles Augustus Ring became Lecturer in Obstetrics, Addison Sanford Thayer had Diseases of Children, Henry Herbert Brock became Assistant to the Chair of Surgery, and Frank Nathaniel Whittier

became Instructor in Bacteriology and Pathological Histology, a remarkable addition to the faculty in every way. Edward James McDonough became Demonstrator of Histology; and the entrance requirements were changed to include a knowledge of Latin and Elements of Chemistry.

The dissecting room, which in 1897 had been a little crude and not altogether satisfactory on account of the difficulty of securing material, showed a marked improvement. A new anatomical law gave adequate dissecting material, and Dr. Alfred King improved the character of this branch in every way.

The entering class of 1898 was large as it was intimated that the school was to become a four-year school in a short time.

The entering class of 1897 was reduced in numbers quite perceptibly, but it was still large. We had in our entering class several hold-overs, men who had been first-year students for one, two and even three years and had not made their grades. There were also a few who had been sent there apparently because their parents had no other means of disposing of them, and they were not missed when they left or were left.

At the end of its third year our class, originally seventy-five, graduated thirty-nine. They had dropped out all along the line. A few gave it up in discouragement, one or two for lack of money, and a number transferred to other schools. This shifting about was not uncommon. Dartmouth Medical School at that time conducted a summer session and a smart student who was desirous of getting into practice quickly could spend a winter session at Bowdoin, a summer session at Dartmouth, and return in the winter to Bowdoin, qualifying as a third-year student instead of a second if he were able to pass the examinations, but this he must do. There was never any letting up of examination requirements in any of the three years. Whatever a man's knowledge may have been when he entered, he could not graduate unless he passed every branch of the three years with a rank of at least seventy in each.

Anatomy, physiology and chemistry were passed off in the first and second years, and the third year was devoted to the practical branches. There was a large amount of study-

ing to do but, generally speaking, not the fear that inspired the first- and second-year students, for it was quite generally believed that a man would not be plucked in his third-year studies. Unfortunately, some of those who cherished this comfortable assurance met with disappointment and failed to make the grade, and on the whole, nothing but application and untiring industry for the full three years made graduation an assured fact.

I do not hesitate to state that those who graduated in 1899 had received a complete medical education, as medical education was understood at that time. Many of these men had received as many hours of instruction as though they had attended a four-year school, and I refer to those who were students of the Portland School for Medical Instruction in the summer. This school, at that time, was housed in a building on Middle Street over the Canal Bank, with a dissecting room on the top floor. It conferred no degrees, but made the work in the Medical School of Maine much easier. It also gave its students clinics and bedside instruction at the Maine General Hospital, something which was lacking for those who took the courses at Brunswick only. The Maine Medical School did not afford a chance for research work and did not give extensive courses in the specialties, although as a matter of fact a number of its graduates went into the specialties after very short post-graduate courses in the large cities, attained prominence if not eminence, and quite respectable financial rewards.

Without being too complacent, I think we may state that our medical graduates of that time did just as well in practice as men from the other schools. With the exception of research work, which we never taught, they showed up as well as those of any school in the country. Some of you wonder how a body of young doctors, most of them without a college education, stood up in competition with men so fitted. Time demonstrated that it made little or no difference. We had some very splendid college men in our mixed classes of that time, but the passing of years did not demonstrate their marked superiority. At the present time, when all medical stu-

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Mortality in Acute Appendicitis

AN ANALYSIS OF 615 CASES IN A SMALL COMMUNITY HOSPITAL

HARRY BRINKMAN, M. D., F. A. C. S., Farmington, Maine

To the writing of articles on acute appendicitis, like to the making of books, there is no end. The study of this very important subject has been intense, and so many articles have been written, that the addition of another requires some sort of justification lest one be guilty of simply adding to the confusion. The only justification I have to offer is that self-examination is one of the best forms of discipline. So long as statistics do not come home to roost they remain but cold facts which affect us but little. It is only by self-analysis that one can hope to discover one's errors and to seek methods of avoiding them as far as possible in the future. I have therefore undertaken to review all of the cases of acute appendicitis, both simple and those complicated by perforation, which have been operated upon in this hospital since its opening. Cases of so-called interval and incidental appendectomies have been purposely omitted for aside from some unforeseen complication or some error due to human fallibility this procedure should carry with it a negligible mortality rate.

This series of cases has been divided into four groups, acute appendicitis without perforation, acute appendicitis with recent perforation, either at the time of removal or before peritonitis had developed, appendicitis with abscess formation, and finally appendicitis with diffuse peritonitis.

As noted in the chart, this study includes 615 cases diagnosed clinically as acute appendicitis plus those in which complications developed as a result of perforation of the appendix. Patients that undergo appendectomy while the infection is limited to the appendix itself show an average mortality throughout the country of less than 1%. Patients as a rule do not die of appendicitis—they die of complications which arise from a spread of the infection beyond the confines of the organ itself. In our group there was one death in the 536 cases of acute appendicitis in which, although many were gangrenous, no mention was made of perforation in the operative note. This is a mortality rate of 0.18% which is low indeed.

In the entire series of 615 cases there was a total of 21 deaths, a mortality rate of 3.41%. This corresponds closely to many other and larger reported series in the literature. An interesting fact is that of the 615 cases there were 22 patients over 60 years of age, the oldest 90 years, and in these 22 cases there were 8 deaths, a mortality rate of 36.3%. Obviously, appendicitis is a very serious disease in the aged, the outcome in one-third of the cases being fatal.

From the foregoing it is evident if the acutely inflamed appendix is removed before perforation occurs that a very low mortality ensues except in the aged. There can be no question as to the advisability of early appendectomy. It is, however, in the cases where perforation has occurred and the infection is no longer confined to the appendix that the problem of appropriate treatment arises. Perforation of an appendix may occur slowly or it may occur within a very short time and this fact may in a large measure determine the subsequent course of the disease. The infection may become localized by the defense reactions of the body resulting in an appendiceal abscess or it may rapidly

MORTALITY RATES IN THE FOUR GROUPS

Diagnosis	No. of Cases	No. of Deaths	Percentage Mortality
Acute appendicitis, not perforated	: 535	1	0.18%
Acute appendicitis, recent perforation	: 21	2	9.50%
Acute appendicitis with abscess formation	: 16	6	37.50%
Acute appendicitis with diffuse peritonitis	: 42	12	28.57%
Carcinoid appendix	: 1	0	0.0
TOTALS	: 615	21	3.41%

spread and produce the diffuse form or spreading peritonitis with which we are all so familiar.

From the chart it will be seen that our highest mortality rate occurs in the group of cases of appendicitis with abscess formation, a group which according to many observers should carry a much lower mortality rate if properly handled. Our mortality rate in the 16 cases so reported was 37.5%, much higher than most reports in cases of this type. Why should this be so? Undoubtedly some of these deaths result from what Bower and his associates⁽¹⁾ call Operative-Induced Spreading Peritonitis. He says, and I think correctly so, that it is in this group of cases where errors of commission can markedly influence the final outcome. When the infection, which has now gone beyond the appendix, is in the process of being localized, the inadvertent breaking down of this localization either by instruments or the inquisitive finger searching for the appendix may well cause a spreading peritonitis resulting fatally. A small localized abscess may well be absorbed if left alone but if disturbed sufficiently may well flare up and become a lethal lesion for as these writers say, "Individuals recover or die from spreading peritonitis just as they do from a pneumonia or a spreading cellulitis because they do or do not develop a general and local tissue immunity. Doses of antigen, clasmatoeytic response, and antitoxin formation are as important in one as in the other." I believe that in the early stages of abscess formation, before the patient has had sufficient time for adequate antitoxin formation, that local cellular response in the peritoneal cavity is very important. It is frequently observed that patients with recently perforated appendices with obvious contamination of the peritoneal cavity who have an abundant amount of cloudy fluid, that is, fluid with a high leucocyte count, can be primarily closed after appendectomy and go on to an uneventful recovery because of the presence in the fluid of high numbers of polymorphonuclear leucocytes which can immediately phagocytize the liberated bacteria. This has been quite conclusively demonstrated by Steinberg⁽⁴⁾ and others in their work with Coli-Bactragen. It

would seem that the common practice of aspirating or sponging out this cloudy fluid after the removal of a gangrenous or recently perforated appendix is one to be discouraged.

On the other hand, if one finds a localized abscess in the presence of a clear fluid it would seem that the danger of inducing a spreading peritonitis by breaking through the wall of protection is very great. Here one finds few phagocytes and bacterial proliferation can proceed and may never be overcome by the delayed appearance of the leucocytes. We recently had a case which illustrated this point very well. The case was one of a boy of 8 years of age who was admitted with a palpable and visible mass in the right lower abdominal quadrant, fever and leucocytosis one week following an attack of pain typical of acute appendicitis. A diagnosis of perforated appendicitis with abscess formation was made. His general condition was excellent. An incision was made over the dome of the mass with the hope of entering an abscess. On exposing the peritoneum it was found that the peritoneum was free. It was carefully opened and considerable clear fluid was found. An inflammatory mass was found just beneath and this was attached posteriorly and laterally and surrounded by adherent omentum. The incision was closed and another made lateral to the first one at a point at which the mass appeared adherent to the parietal peritoneum. However, the peritoneum was again found free and the peritoneal cavity was again entered. No approach seemed possible to open the abscess without contaminating the general peritoneal cavity. A gauze pack was placed against the abscess wall and brought out through the wound for later drainage much as is often done for brain or pulmonary abscesses. It was hoped that the abscess might drain spontaneously or if not, to remove the pack after 48 to 72 hours and do a secondary drainage. After 64 hours, on removing the pack, it was found that the abscess had been almost completely absorbed. The boy made an uneventful convalescence, his temperature declining steadily. I feel sure that had we broken down the mass and attempted removal of such an appendix in the presence of an unprepared peritoneal cavity where there was

clear fluid with a low cell count, the outcome would have been different. He might have survived but he would have had a stormy time.

It is in this group of perforated cases where localization is taking place that one can easily harm instead of benefit the patient by being too zealous in our attempts to remove the appendix. Once localization has begun, and this can frequently be determined from the history and physical findings, the period of urgency has passed. However, more often one cannot be sure of exactly what is taking place within the abdominal cavity and it would therefore seem advisable in all but exceptional cases to operate as soon as the condition of the patient warrants, in order to determine the state of affairs. The only point I wish to emphasize is that one should open the abdomen with extreme care. If one opens into the general abdominal cavity and finds an inflammatory mass involving the appendix, too energetic search with the finger is very likely to break down the protective zone surrounding it and free an overwhelming amount of antigen at one time into the peritoneal cavity for which it is unprepared. Our mortality of 37.5% in this group, which is much higher than most reports in this type of case, bears this out. If an abscess is found and the incision is not so placed so as to be able to open the dome of it without contaminating the free peritoneum one should not hesitate to close the incision and make another which will provide a more advantageous approach. The problem of immediate concern is to prevent spread of the infection and not to remove the appendix. If the abscess can be drained and the appendix removed at the same time, well and good, but if not, it should be left in situ to be removed at a later date.

Now let us look at the cases of so-called spreading or diffuse peritonitis; cases in which no evidence of localization can be found. By spreading peritonitis is meant those cases in which the inflammatory process has spread to involve a large portion of the peritoneal cavity. How much of the peritoneum is involved cannot be determined at operation, for if it is, it denotes as Ladd has so well said, a very "improper operation."

Spreading peritonitis is characterized by distention, generalized rigidity and tenderness, rapid pulse, temperature usually over 101° F., vomiting, and no evidence of a definite mass. Of these cases, we have had 42 with 12 deaths, a mortality rate of 28.57%. This is a high mortality rate and corresponds closely with many other similar reports. By what means, if any, can we hope to reduce this figure? First of all, one must know something of why patients with peritonitis die. As we all have perhaps observed and as reported by Wright and his colleagues⁽²⁾ these patients reveal an adynamic ileus with distention of the entire gastro-intestinal tract with elevation of the diaphragm, basal compression of the lungs, a terminal pneumonic process in the bases, splanchnic dilatation and circulatory failure. These patients die of intestinal obstruction and toxemia resulting in circulatory failure and shock. The three important factors in the treatment of this condition are rest, both local and general, decompression, and the maintenance of hydration and chemical balance.

By all odds, morphine is the drug of choice for obtaining both general and local rest. It relieves pain, induces sleep, adds tone to the atonic intestinal musculature without increasing peristalsis. It should be given in adequate dosage to the point of relative comfort without too marked a respiratory depression.

The marked distention with the elevation of the diaphragm and basal compression of the lungs leads to considerable respiratory difficulty and anoxemia for which oxygen can often be profitably given. The compression can best be combated with the continuous aspiration set-up as devised by Wangensteen. This has been a great factor in the treatment of intestinal obstruction of the adynamic type. Certainly the indiscriminate use of cathartics, enemata, and peristaltic stimulants such as pitressin and prostigmine should be discouraged. The intranasal catheter often fails to appreciably relieve distention, particularly if used late when normal peristalsis in the stomach has gone and the tip cannot be carried into the duodenum. Usually the earlier aspiration is instituted, the better are the results.

These patients with nausea and vomiting, inability to take fluids, or as a result of continuous aspiration, soon become dehydrated with a loss of normal chlorides resulting in alkalosis. This is best overcome by the adequate administration of parenteral fluids. The amount of fluids that a patient requires can best be determined by noting the urine output—according to Collier⁽³⁾ enough should be given to maintain a daily excretion of urine of 1000 to 1500 cc. Enough physiological saline should be given to keep the blood chloride level near to normal, the remainder of the fluid given as 5% glucose in distilled water. To accomplish this requires at least a basic amount of 3500 cc.-2000 cc. for the insensible loss through respiration and perspiration and 1500 cc. to compensate for the output of urine. In addition to this, enough must be given to overcome the dehydration and other losses such as result from continuous aspiration, vomiting, etc. Once a patient is in chloride balance, it may be roughly maintained by replacing the fluid lost through aspiration with physiological saline and the remainder as 5% glucose in distilled water. For the severe toxemia repeated transfusions of whole blood are perhaps most effective. The place of drugs of the sulfonamide group, x-ray therapy, and anti-toxins have as yet not been established but do promise to have a place in the future treatment of peritonitis.

What should be done surgically for the patient entering the hospital with a perforated appendix and presenting the picture of a diffuse peritonitis? Not a few of the leading surgeons are ardent advocates of the delayed operation method of treatment and can present statistics which seem to substantiate their view. Undoubtedly many of the arguments for this form of treatment are sound and for certain of the cases may be the method of choice. Patients recover or do not recover from peritonitis depending upon the degree of their general and local tissue resistance and immunity. To impose upon an extremely ill patient a surgical operation may be sufficient to tip the balance adversely and result fatally. The battle in peritonitis is fought to a large degree within the peri-

toneal cavity itself. Steinberg's⁽⁴⁾ work on peritoneal reactions and protection which has been substantiated by Collier and others working with him shows that the rate of neutrophilic proliferation and phagocytosis as compared to the rate of bacterial proliferation in the peritoneal cavity is all important in determining the outcome in peritonitis. One can almost prognosticate cases of this type by studying smears of the peritoneal exudate. If the smears show large numbers of bacteria with few leucocytes and meager phagocytosis the prognosis is grave. If, however, there are seen few or no free bacteria and large numbers of leucocytes, the prognosis is good. Survival depends upon the rapid disappearance of the bacteria and this depends upon the adequate cell response within the peritoneal cavity. Therefore, any procedure which adversely affects this protective reaction or enhances absorption by the peritoneum such as the mopping out of the peritoneal cavity with gauze which removes the endothelial cells from the surface should be avoided. On the other hand, it would seem that if an appendix can be removed without too much delay or trauma, it should be done for it may well be a continuous source of infection and the severity of the infection depends not only on a qualitative but also upon a quantitative factor. No patient, however, should be subjected to surgery until shock, distention, and dehydration have been partially overcome. The condition of a patient who has been ill two, three or more days can often be improved and made more fit for surgery by several hours of supportive treatment rather than to subject him to a laparotomy the same hour that he is admitted. The least that seems absolutely necessary surgically should be done.

Undoubtedly patients will continue to come to us for whom nothing curative can be done but many reports in the literature bear witness to the fact that the mortality rate resulting from the perforation of an acutely inflamed appendix can be substantially reduced by giving practical application to certain physiological principles with which we are all familiar.

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Henoch's Idiopathic Purpura

By HENRY G. HADLEY, M. D., Washington, D. C.

Purpura means cutaneous hemorrhage, and where it is combined with colic it is called Henoch's purpura after his description in 1874.¹ This disease is related to various erythemas,² urticaria and angioneurotic edema.³

This condition may occur with or without purpura, and where purpura is absent many have undergone surgical operations for attacks which have resembled appendicitis. These abdominal symptoms are colicky in type and are due both to internal hemorrhages and to swelling and distention of the bowel.⁴ There is edema in a large proportion of cases, which occurs on the face, hands, and feet. This may or may not be associated with disturbances of renal function.

In the blood examination there is a normal or slightly prolonged coagulation time, and the platelets may be normal or somewhat reduced. The symptoms are anaphylactoid⁵ in nature, and it is probable that this form of purpura is associated with infection⁶, as in other anaphylactic reactions such as serum disease there is swelling and puffiness about the eyes and face. There may be no fever or only a slight rise in temperature.

The purpuric lesions are usually confined to the skin and do not appear on the mucous membranes, but hemorrhages are not common.

This disease may not only simulate abdominal disease⁷ but may cause it, as in a case of appendicitis with perforation reported by Uderman⁸. The administration of Vitamine C, which has been suggested because of the slight similarity to scurvy, is of no practical importance.

The platelets may be increased by Vitamine C therapy,⁹ but this is attributed to direct stimulation of the bone marrow. The vitamine does cause an in vitro acceleration of clotting,¹⁰ but treatment does not produce any definite clinical results.¹¹

CASE REPORT

Gay Mally, white male, age 8, was first seen on March 22, 1940. The most promi-

nent symptom was the frequent appearance of colicky abdominal pains which prevented the child from sleeping and would cause him to assume grotesque attitudes in his attempt to secure relief. There was a typical purpuric eruption over the extremities and was more marked on the thighs. Recovery was gradual, and the last symptom to disappear was the abdominal colic.

Laboratory report: Blood count, red 4,040,000; white 21,900. Polys 54%, Band 26%, Lymph. 16%. Platelets 113,120. Kahn test negative. Vitamine C content of the blood only one-third of normal. Examinations of the stool consistently showed blood.

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The President's Page

To the Members of the Maine Medical Association:—

On July 26th, the Council met at Bayview Farm, Belfast, all members being present. Among items of business considered at the meeting it was voted that each Councilor report at the October Council meeting the wishes of the County Societies of his district concerning the nature of the 1943 Annual Session of the Association. Let every member give this matter some serious thought and thus assist your officers in making a proper decision as to this meeting in 1943.

A word concerning "The Doctor at Home." "So much to do, so little time in which to do it." These words are attributed to Sir Cecil Rhodes — in the year of his death. They might be spoken today by every American Doctor of Medicine.

Doctors in military service will find their schedule arranged for them. Those of us who must remain at home must find ways to increase our efficiency. Members of the profession who have the task of carrying on at home will find that the demands made upon their time will become increasingly heavy, not only for the duration of the war but for some years to come. To conserve our strength, thus increasing our efficiency, we must look carefully into our use of time. Most of us are unable to plan a schedule of our day's work in advance and are forced by urgency and circumstances to work through the day and into the night in a somewhat haphazard way. We should try to protect ourselves from interruption and time wasted.

In some foreign countries the polite guest always waits for his host to rise first and thus indicate that the time has come for the guest to leave. Might we not imitate this custom to good advantage and make it a habit to rise and plead an urgent call whenever our time is being taken by unimportant matters.

Most of us become fatigued because we take on more work than we should do. Let's follow the advice we give our patients as to proper rest and relaxation. People need to be reminded, and in many cases taught, that during the war, doctors have no time to waste and that it is to their advantage to help to keep their own doctor from being exhausted through over work.

The time has come when it is necessary to face the fact that all of us at home, while the younger members are in the military service, must do much more work than in normal times.

To increase our efficiency without unduly hastening our physical and mental impairment it will be necessary for us to scrutinize our use of time and to have the fortitude to make the necessary alterations in our activities. We who are at home should devote as much time as circumstances permit to our Civilian Defence Program. Let's assist, in every way we can, our State Medical Director of Civilian Defence, Albert W. Moulton, M. D., of Portland, and our local organizations in this important work.

Let every Doctor of Medicine encourage donations to the Blood Plasma Banks of the State, that his community may not suffer from the lack of this modern life-saving measure in time of need.

As you all know, opportunities for service in Civilian Defence are unlimited. As a profession let us do our part in preparation of the Home Front.

CARL H. STEVENS, M. D.,
President, Maine Medical Association.

An Old-Fashioned Medical School—Continued from page 179

dents are college graduates, there is no basis for comparison.

The Medical School of Maine, like all other schools in the period I am describing, taught principally by the lecture system, supplemented by quizzes. The lecture system of that day was a wonderful means of imparting instruction to a class of considerable size, and no teacher was a marked success unless he was a good lecturer. The time came when there was a dearth of medical lecturers. Educators affected to despise this system but I think those who disparaged it were those who were unable to carry it out. It must be admitted in its favor that a system of instruction which enabled a medical school to take recruits from the ranks of toil, graduates of the farm and shop, and in three years time equip them so that they compared favorably with college graduates and were able to compete with them on even terms, was a good system.

As a matter of fact, our professors and teachers taught more than medicine, and the course given was in many respects a fair substitute for an academic education. The course of lectures in Anatomy by Dr. Frederic Henry Gerrish was equivalent to a course in English with a fair amount of Latin, probably as much as was needed in the practice of medicine. Dr. Franklin C.

Robinson taught Chemistry but incidentally easily, and it seemed naturally, worked in a large amount of practical science. Dr. Alfred Mitchell taught Pathology and Practice, and without effort included philosophy, economics and ethics. Other members of the teaching staff made generous contributions, for there were giants in those days; intellectual giants.

You know better than I about medical schools and medical education at the present time, and you probably know something about the cost. One of our successful surgeons of fairly recent times told me that the cost of his medical education after leaving high school and paid of course, by his father, was approximately twenty thousand dollars. Assuming the extreme cost of medical education in my day as being two thousand dollars, his education cost him ten times as much. Admitting that he may be a better man, is he ten times as good? It is not for me to judge; but to break even, he should have accumulated at the end of his life a competence ten times as great and should live to practice ten times as long, regarding which we may certainly entertain grave doubts. There is no chance of medical education returning to the extreme simplicity that characterized it in 1897, but there is a possibility that the economic situation may change it somewhat. Some of you may live to see it.

Mortality in Acute Appendicitis—Continued from page 183

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The health of the people is really the foundation upon which all their happiness

and all their powers as a state depend.—*Disraeli.*

Editorials

To Each a Duty

All of you should now be familiar with the program of the Procurement and Assignment Service, the Selective Service Act, and the purpose of the Maine Medical Officers' Recruiting Board at 31 Western Avenue, Augusta. But at this writing Maine is still behind in supplying its quota of physicians needed for the Armed Forces.

Every physician under 45 years of age, physically fit, and not engaged in an essential occupation, must be made available to the armed forces. Again we urge you who have not already done so to go at once to your Recruiting Board and apply for your Commission. Don't wait for the draft.

We are engaged in an "all out war," everybody's war, and a war that will require the services of every physician, either in the armed forces or on the home front.

The boys in our armed forces need every one of you under 45 years of age, who is physically fit and declared available by the state board of procurement and assignment service. Don't let them down.

Our civilian population who are engaged in defense production, on the farms, or in maintaining the homes of these workers, need you whose duty it is to remain at home. Your task will be a hard one, maybe not as colorful as that of those in service but equally as important. Many of you who have carried on your practice for many years and seek retirement must again "hang out your shingle," in order that the younger doctors may be made available for service.

Proceedings at the Ninetieth Annual Session

The stenographic report of Proceedings at the Ninetieth Annual Session, House of Delegates, Election of President-elect, and Scientific Sessions, has just been received at the Association office. The transcript of Proceedings at the First and Second Meetings of the House of Delegates, and the Election of the President-elect, are now being edited for publication, which will start with

the September issue of the JOURNAL and be continued in the October and November issues.

These reports of proceedings at the House of Delegates meetings are the records of the deliberations of the legislative body of your Association composed of delegates elected by the component county Societies and the officers of the State Association. They contain the report of the Council for the year just past, the Budget for the new year, the report of your Delegate to the American Medical Association annual meeting; reports of Delegates to New England State Medical Society annual meetings; the appointment of a Reference and a Nominating Committee, and the reports of these committees; reports of committees not published in the June issue of the JOURNAL; discussion and action on new business brought before this body; in fact, a detailed record of the business transacted by the governing body of your Association.

The election of the President-elect took place on Monday afternoon, June 22nd, in accordance with the Association By-Laws, Chapter IV, Section 7, which states "The election of President-elect shall be by direct ballot in the general assembly of the Association at the close of the first general afternoon session," and the report will be published following the Proceedings of the House of Delegates.

These records are published, not only in order that we may have a permanent record in the pages of the JOURNAL, but in order that every member of this Association may read them and familiarize himself with the work of the delegates from the county societies, and the officers of the state association, in carrying on the purposes of this Association; "To promote the science and art of medicine, the protection of public health, and the betterment of the medical profession; and to unite with similar organizations in other States and Territories of the United States to form the American Medical Association." Don't miss reading these reports.

The report of proceedings at the Scientific Sessions will be published in conjunction with papers presented at these sessions.

Medical Division Office of Civilian Defense

State Hospital Officers Appointed

The Medical Division of the Office of Civilian Defense announces the appointment of State Hospital Officers in coastal States to direct the hospital program of the Emergency Medical Service under the State chiefs of Emergency Medical Service.

The following hospital officer has been appointed a consultant in the Public Health Service for part-time duty:

MAINE: Mr. G. K. Lermond, Thomaston.

The duties of these hospital officers will be: to survey rural hospital facilities suitable for use as Emergency Base Hospitals, to supervise personnel arrangements for the Base Hospitals and reception centers for evacuated civilians, to collaborate with State chiefs of the Emergency Medical Service in controlling movements of medical and nursing staffs as well as of casualties in any situation affecting Emergency Base Hospitals and to perfect arrangements for transporting patients evacuated from Casualty Receiving Hospitals.

Consultants on OCD Blood and Plasma Program

Under the program recently launched by the Medical Division of the Office of Civilian Defense and the U. S. Public Health Service to provide plasma for the treatment of civilians injured in warfare, regional consultants have been appointed to advise hospitals on technical problems related to the establishment of blood and plasma banks.

Dr. Fred Bryan, Rochester, N. Y., is the consultant for the First and Second Civilian Defense Regions and a part of the Third

Region. Dr. Elmer L. DeGowin, Iowa City, is acting as technical consultant on special problems. The blood and plasma bank program is at present confined to vulnerable areas within 300 miles of the ocean and gulf coasts. The Subcommittee on Blood Substitutes, Division of Medical Sciences, National Research Council, serves in an advisory capacity to the Medical Division of the Office of Civilian Defense as it does to the Medical Departments of the Army and Navy and the American Red Cross.

New Appointments

Dr. David D. Rutstein, chief of the cardiac bureau of the New York State Department of Health, Albany, has been appointed to the staff of the Medical Division, Office of Civilian Defense, Washington, D. C., as medical gas officer to organize instruction for physicians of Eastern States in the medical aspects of chemical warfare.

A native of Wilkes-Barre, Pa., Dr. Rutstein graduated from Harvard University, Cambridge, Mass., in 1930 and from Harvard Medical School, Boston, in 1934. For the next eighteen months he served as house officer on the Second Medical Service at the Boston City Hospital and in the academic year 1936-1937 was assistant in bacteriology and research fellow in pediatrics at Harvard Medical School. In 1937, Dr. Rutstein was appointed medical consultant to the bureau of pneumonia control of the New York State Department of Health, Albany, and continued in that capacity until January, 1941, when he became chief of the cardiac bureau. He is now on leave from that position.

Home Study Courses for Members of the Maine Medical Association

Because of the war many features of Postgraduate Medical Education will be seriously curtailed or given up. It has been deemed necessary to postpone the N. E. Postgraduate Medical Assembly for the duration. The formal courses, offered to members on Fellowships from the Commonwealth Fund and the Bingham Associates, are gradually being discontinued. Travel is becoming increasingly difficult so that attendance at various staff groups and sectional meetings will not be as constant as formerly. And yet it is most essential that every effort be made to keep the standards of medical service at a high level of efficiency.

With more of our younger physicians going into the Army or Navy, the available medical service must assume greater burdens. Older men will have to become increasingly active both in hospitals and in private practice. With greater demands upon the individual physician it becomes increasingly important that he be given every possible aid in keeping abreast of present-day scientific achievements, and that this be done without the necessity of his travelling away from home and his professional responsibilities. For the physician located in an active hospital group this does not present the same problem as for the man situated more or less alone in a rural community. The hospital must assume the responsibility for Continuation Education in the former case, while the latter is left more or less to his own devices.

With the idea of meeting the requirements

of the large group of physicians, a program of Home Study Courses was authorized by the House of Delegates at the last annual meeting. This program will be largely designed to assist in organized reading, suggesting pertinent up-to-date subjects with which the physician should be conversant and providing ready references in the literature. It follows a plan of Home Study Courses which has been conducted by the American Academy of Ophthalmology and Oto-laryngology for the last three years.

Courses will be offered in General Medicine, Surgery, Obstetrics and Gynecology and in Pediatrics. These courses will be strictly clinical, endeavoring always to furnish material of practical value. These will be available without cost to members of the Maine Medical Association, upon application to the State Secretary's office. It is planned to send out material periodically to each applicant. A physician may apply for one or more of these courses, just as he desires. Committees of recognized specialists will have charge of these different courses.

Following this will be found an application blank which can be filled out and sent to Frederick R. Carter, M. D., 142 High Street, Portland, Maine. This is all that is necessary to enroll in these courses. This should be done without delay as it is desired to start these courses in September.

COMMITTEE ON GRADUATE EDUCATION,
F. T. HILL, M. D., *Chairman*.

FREDERICK R. CARTER, M. D., *Secretary*,
Maine Medical Association.

Please enroll me in the Home Study Course for General Medicine—Surgery—Obstetrics and Gynecology—Pediatrics. (Strike out courses not desired.)

(Signed) _____, M. D.

(Address) _____

_____, 1942

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County News and Notes

Aroostook

The Annual Meeting of the Aroostook County Medical Association was held at Houlton, Maine, June 10, 1942.

At the evening session Dr. Samuel Proger, Boston, spoke on *Some Medical Diagnostic Problems*. Many interesting case reports were presented and the method of arriving at the diagnoses explained.

The following officers were elected for the coming year:

President: Thomas G. Harvey, Mars Hill.

Vice-President: Francois J. Faucher, Grand Isle.

Secretary - Treasurer: Clyde I. Swett, Island Falls.

GERALD H. DONAHUE, M. D.,
Secretary.

*New Members**Oxford*

David Davidson, M. D., Greenwood Mountain, Maine.

Gisela Kaufer Davidson, M. D., Greenwood Mountain, Maine.

*Change of Address**Kennebec*

Roscoe L. Mitchell, M. D.

From: 15 Johnson Heights, Waterville, Maine.

To: 111 Western Avenue, Augusta, Maine.

Oxford

Norman M. Jackson, M. D.

From: Andover, Maine.

To: 17 South Street, Middlebury, Vermont.

*Deaths**Androscoggin*

Anthony D. Pelletier, M. D., 36, of Lewiston, was accidentally drowned on July 4, 1942, while on a fishing expedition at Rangeley.

Doctors of the Maine Hospital Unit

Doctors of the 67th General Hospital, first affiliated hospital unit from Maine, which will probably be called to service about September 1st:

Commander: Lieut.-Col. Roland B. Moore, of Portland. Doctor Moore served two years in World War I, and for more than a year was Assistant Division Surgeon of the 76th Division, and Adjutant of the Hospital Center, Commercy, France. After the Armistice he was an officer of the American Military Mission to Berlin.

Chief of Surgical Service: Lieut.-Col. Stephen A. Cobb, of Sanford. Doctor Cobb served in World War I, at Camp Jackson and Greene, and as Captain at Base Hospital 54 in France.

Chief of Medical Service: Lieut.-Col. Elton R. Blaisdell, of Portland. Doctor Blaisdell has been Associate Chief of Medical Service at the Maine General Hospital for several years, and is at present Acting Chief.

Majors:

- Milton S. Thompson, Portland
- Jack Spencer, Portland
- Philip H. McCrum, Portland
- Edward A. Greco, Portland
- Alvin A. Morrison, Portland
- Henry M. Tabachnick, Portland
- Eaton S. Lothrop, Portland
- Charles W. Steele, Lewiston
- William V. Cox, Lewiston
- Merrill S. F. Greene, Lewiston
- Wilfred J. Comeau, Bangor
- Carl E. Richards, Alfred.

Captains:

- George C. Poore, Portland
- E. Allan McLean, Portland
- Alvin E. Ottum, Portland
- Gordon N. Johnson, Portland
- Albert C. Johnson, Portland
- Eugene P. McManamy, Portland
- Otis B. Tibbetts, Lewiston
- Bertrand A. Beliveau, Lewiston
- Paul R. Chevalier, Lewiston
- Edward W. Holland, Sanford
- Charles W. Eastman, Livermore Falls
- Ralph E. Williams, Freeport
- Gerald H. Donahue, Presque Isle
- James W. Reed, Farmington
- Maynard B. Colley, Wilton
- Paul C. Marston, Kezar Falls
- Joseph A. Villa, South Paris.

First Lieutenants:

- Walter G. Dixon, Norway
- John R. Merrick, Portland
- Joseph G. Ham, Portland
- C. Lawrence Holt, Portland
- Harry E. Christensen, Portland
- J. Robert Downing, Kennebunk
- Rosario A. Page, Caribou
- Gilbert Clapperton, Lewiston.

The unit sponsored by the Maine General Hospital under the direction of Roland B. Moore, M. D., has been in the process of organization since July, 1940, will form the personnel of a base hospital of 1,000 beds, with a staff of 48 doctors, 7 dentists, 18 administrative officers, 105 nurses, and 400 enlisted men of the Medical Department.

Notices

Tumor Clinics

- Bangor:** Eastern Maine General Hospital
Thursday, 11.00 A. M.-12.00 M.
Director, Magnus F. Ridlon, M. D.
- Lewiston:** Central Maine General Hospital
Tuesday, 10.00 A. M.-12.00 M.
Director, E. C. Higgins, M. D.

St. Mary's General Hospital
Wednesday, 4.00 P. M.
Director, R. A. Beliveau, M. D.
- Portland:** Maine General Hospital
Thursday, 11.00 A. M.-12.00 M.
Director, Mortimer Warren, M. D.
- Waterville:** Sisters Hospital
1st & 3rd Thursdays, 10.00 A. M.
Director, B. O. Goodrich, M. D.

Thayer Hospital
2nd & 4th Thursdays, 10.00 A. M.
Director, E. H. Risley, M. D.

*Bureau of Health
Services for Crippled Children*

Clinic Schedule

- Bangor:** Eastern Maine General Hospital
Thursday, 1.00 P. M.-3.00 P. M.:
September 3, October 1, November 5, December 3.
- Waterville:** Thayer Hospital
Thursday, 1.30 P. M.-3.00 P. M.:
August 27, October 29, December 31.
- Rockland:** Knox County Hospital
Thursday, 1.30 P. M.-3.00 P. M.:
August 20, November 19.
- Portland:** Children's Hospital
Monday, 9.00 A. M.-11.00 A. M.:
August 10, September 14, October 12, November 9, December 14.

Fort Kent: *Normal School*

Monday, 9.00 A. M.-11.00 A. M.,
sometimes from 1.00 P. M.-3.00
P. M. also. August 24, October
5, December 7.

Presque Isle: *Northern Maine Sanatorium*

Tuesday, 9.00 A. M.-11.00 A. M., 1.00
P. M.-3.00 P. M.: August 25, Oc-
tober 6, December 8.

Lewiston: *Central Maine General Hospital*

Saturday, 9.00 A. M.-11.00 A. M.:
August 29, September 26, Octo-
ber 24, November 21, December
19.

Rumford: *Rumford Community Hospital*

Wednesday, 1.30 P. M.-3.00 P. M.:
August 19, October 21, December
23.

Machias: *Normal School*

Wednesday, 1.00 P. M.-3.00 P. M.:
October 14, January 20.

Portland *Children's Hospital*

Cardiac: Tuesday, 9.00 A. M.-11.00 A. M.:
August 11, September 8, October
13, November 10, December 8.

Lewiston *St. Mary's Hospital*

Cardiac: Friday, 1.30 P. M.-3.00 P. M.: Au-
gust 28, September 25, October
23, November 20, December 18.

N. B. This clinic schedule is subject to change.
If changes are necessary adequate notice will be
given.

Please destroy previous schedule.

Venereal Disease Clinics

For the information of physicians wishing to
refer cases of venereal disease for treatment, the
State Bureau of Health announces that such facili-
ties are available in the following locations:

Augusta, Bangor, Bath, Belfast, Biddeford, Bing-
ham, Calais, Danforth, Eastport, Ellsworth, Grand
Isle, Guilford, Houlton, Island Falls, Lewiston,
Millinocket, Old Town, Portland, Presque Isle,
Rockland, Rumford, Sanford, Waterville, Wilton,
Winthrop.

Any physician wishing to refer a case may
obtain the name of the clinic physician, in the
town where the patient is to receive treatment, on
request to the Director, State Bureau of Health,
Augusta, Maine.

American College of Surgeons

The 1942 Annual Meeting of the American Col-
lege of Surgeons will be held at Chicago, October
19-23. Frederic A. Besley, M. D., 40 E. Erie Street,
Chicago, Secretary.

The American Congress of Physical Therapy

The American Congress of Physical Therapy
will hold its twenty-first annual scientific and
clinical session September 9, 10, 11 and 12, 1942,
inclusive, at the Hotel William Penn, Pittsburgh,
Pa. The annual instruction course will be held
from 8:00 to 10:30 a. m. and from 1:00 to 2:00 p. m.
during the days of September 9th, 10th and 11th
and will include a round-table discussion group
from 9:00 to 10:30 a. m., Thursday, September 10th.
The scientific and clinical sessions will be given on
the remaining portions of these days and Saturday
morning. A new feature will be an hour's demon-
stration showing technic from 5:00 to 6:00 p. m.
during the days of September 9th, 10th and 11th.
All of these sessions and the seminar will be open
to the members of the regular medical profession
and their qualified aids. For information concern-
ing the seminar and program of the convention
proper, address the American Congress of Physical
Therapy, 30 North Michigan Avenue, Chicago, Ill.

Training Physical Therapy Technicians

Columbia University announces that beginning
September, 1942, a program of professional studies
for the training of Physical Therapy technicians
will be offered. This training and instruction will
extend over a two-year period and has been organ-
ized in compliance with the requirements set down
for such programs by the Council on Medical Edu-
cation and Hospitals of the American Medical
Association. The course is being set up in Uni-
versity Extension in close relationship with the
College of Physicians and Surgeons of Columbia
University, the Nursing Education and Health and
Physical Education Departments of Teachers Col-
lege. The clinical and laboratory instruction will
be given at the Vanderbilt Clinic, Neurological
Institute, Presbyterian Hospital and New York
Orthopedic Dispensary and Hospital.

Two years or 60 semester hours of college, in-
cluding courses in Physics and Biology, shall be
required, or graduation from an accredited School
of Nursing or an accredited School of Physical
Education.

A Certificate of Proficiency in Physical Therapy
will be granted by Columbia University to those
completing the course. Further information may
be obtained by writing the Office of the Committee
on Physical Therapy, Room 303B, School of Busi-
ness, Columbia University, New York City.

Mississippi Valley Medical Society

The Eighth Annual Meeting of the Mississippi
Valley Medical Society at Quincy, Ill., Sept. 30,
Oct. 1, 2.

Second Annual Meeting of the Mississippi Val-
ley Medical Editors' Association, at Quincy, Ill.,
Sept. 30.

*The American College of Physicians Will
Hold Its 1943 Session in Philadelphia,
April 13-16, 1943*

The American College of Physicians has announced its 27th Annual Session to be held in Philadelphia, Pa., April 13 to 16, inclusive, 1943. Heretofore, the College has held a five-day Session, but in the interest of conserving time and expense of its members, the program will be condensed into four days, Tuesday through Friday. Dr. James E. Paullin, Atlanta, as President of the College, will have charge of the program of General Sessions and Lectures. Dr. George Morris Piersol, Philadelphia, as General Chairman, will be responsible for the program of Hospital Clinics, Panel Discussions, local arrangements, entertainment, etc. The general management of the session and technical exhibits will be handled by the Executive Secretary, Mr. E. R. Loveland, 4200 Pine St., Philadelphia.

Legal Medicine

On Wednesday, September 30, 1942, the Massachusetts Medico-Legal Society and the Department of Legal Medicine of Harvard Medical School will unite in an all-day conference at the Mallory Institute of Pathology, Boston City Hospital. Here numerous subjects of medico-legal interest will be discussed and demonstrated. To this meeting medical examiners, coroners, physicians interested in these subjects, state or local legal officials or

police authorities are cordially invited. Immediately following this session, the Department of Legal Medicine of Harvard has arranged for a more intensive post-graduate course to be held on October 1, 2, 3, 8, 9, and 10. This will include close study of many post-mortem investigations made from the medico-legal standpoint and the various procedures associated with possible crime detection, attendance limited to six. For the conference on September 30th, preliminary registration only is required. For the post-graduate course, a small fee will be made. Further information may be obtained from the Department of Legal Medicine, Harvard Medical School, 25 Shattuck Street, Boston, Massachusetts.

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Book Reviews

*"The Treatment of Infantile Paralysis in
the Acute Stage"*

By: Elizabeth Kenny.

Published by Bruce Publishing Company, Minneapolis, Saint Paul, 1941. Price, \$3.50.

Here is a book on positive therapy during the acute stage of anterior poliomyelitis, written by a woman, apparently not a Doctor of Medicine, just Sister Kenny. Sister Kenny has enthusiastically and persistently tried since the year 1933 to prove to the medical profession of England, Australia and North America that in the Kenny treatment she has something to offer to the sufferers of anterior poliomyelitis which commands immediate consideration and widespread application. Many of her statements are so positive and the results of the recorded treated cases so encouraging that the book ought to be read and the Kenny method investigated and employed in all suitable patients by all who are caring for persons afflicted with anterior poliomyelitis in the acute state. Among the many quotable statements which are made by the author are: "I have evolved a satisfactory and commendable treatment for the disease, poliomyelitis, in the acute stage which holds out more hope

for recovery than any yet seen anywhere else, and that my methods introduced original conception in the treatment of this disease." . . . "I have proved that the disease, infantile paralysis, presents symptoms utterly disregarded and pronounced to be non-existent in the orthodox theory." . . . "Sufficient proof has been given that the paramount principle of orthodox treatment, immobilization, prevents the treatment for the symptoms presenting themselves and induces the majority of the undesirable conditions mentioned." . . . "It has been agreed by all observers that deformities did not develop in patients treated by the Kenny system, nor has there been any necessity, to date, to apply any artificial supports to any of the patients we have received early enough to restore mental awareness of the part." . . . "The reason for this more successful result is that the disease presents symptoms unknown to all other observers." . . . "Therefore, I consider it is necessary that this truth should be spread throughout your great United States of America and elsewhere." . . . "I unhesitatingly state that the whole future of the patient depends upon treatment in the acute stage of the disease." Reading of such remarkable successes fills one with new enthusiasm for greater effort at successful therapy in acute anterior poliomyelitis.

"Manual of Standard Practice of Plastic and Maxillofacial Surgery"

Prepared and Edited by the Subcommittee on Plastic and Maxillofacial Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, and Representatives of the Medical Department, U. S. Army.

Robert H. Ivy, Chairman

John Staige Davis

P. C. Lowery

Joseph D. Eby

Ferris Smith

Brig. Gen. Leigh C. Fairbank, Medical Department, U. S. Army

Lt. Col. Roy A. Stout, Dental Corps, U. S. Army

With Contributions by John Scudder and Frederick P. Hangen.

Published by W. B. Saunders Company, Philadelphia & London, 1942. Price, \$5.00.

This book represents Volume One of a series of six which are about to appear under the common title: Military Surgical Manuals of the National Research Council. Volume Two will be entitled: Ophthalmology and Otolaryngology; Volume Three: Abdominal and Genito-urinary Injuries; Volume Four: Orthopedic Subjects; Volume Five: Burns, Shock, Wound Healing, and Vascular Injuries; Volume Six: Thoracic Surgery, Neuro-surgery, and Peripheral Nerve Injuries.

The purpose of the series is directive. It provides a standard of practice and accomplishment in treatment and management of injuries to aid the surgeon in the discharge of his duties. The line of duty between the physician and the patient presenting his casualty is followed systematically from the battalion aid station on through the collecting station, evacuation hospital and finally to the general hospital. The guidance provided by these manuals is possessing authority which must be accepted by every surgeon in service. "The surgeon should not be permitted to deviate from these standards unless his practice can be fully justified."

"Methods of Treatment in Postencephalitic Parkinsonism"

By: Henry D. von Witzleben, Elgin State Hospital, Elgin, Illinois.

Published by Grune & Stratton, New York, 1942. Price \$2.75.

On 135 pages of text the author informs the medical reader on the various forms of treatment which have been employed in an effort to alleviate the suffering of persons afflicted with postencephalitic Parkinsonism. At present the only therapy which gives any measure of lasting comfort is the Bulgarian Treatment combined with physical therapy. These are described in detail. There are 20 pages of bibliographic references for the benefit of those who wish to study source material.

"Diseases of Women"

By: Harry Sturgeon Crossen, M. D., F. A. C. S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital, and St. Luke's Hospital; Consulting Gynecologist to DePaul Hospital and the Jewish Hospital; Fellow of the American Gynecological Society and of the Central Association of Obstetricians and Gynecologists; and Robert James Crossen, A. B., M. D., Assistant Professor of Gynecology and Obstetrics, Washington University School of Medicine; Assistant Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Assistant Gynecologist to the St. Luke's Hospital and to DePaul Hospital; Fellow of the Central Association of Obstetricians and Gynecologists; Diplomate of American Board of Obstetrics and Gynecology.

Ninth Edition. Entirely Revised and Reset.

With 1,127 Engravings, including 45 in color.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$12.50.

The present, ninth edition, of this great work is brought up to date in all important features. In theory and practice the authors have incorporated everything that they have found to be helpful to the practitioner. Whatever is known better today than a decade ago concerning the diagnosis and treatment of gynecologic complaints is known chiefly because of our better understanding of the physiologic and pathologic activities which are constantly in progress but possessing the inherent tendency to vary from day to day. Crossen and Crossen continue to keep the profession well informed.

"Medical Clinics of North America"

Volume 25 — Number 6 — November, 1941
Military Medicine

Published by W. B. Saunders Company, Philadelphia and London. Paper, \$12.00 per Clinic Year; Cloth, \$16.00 per Clinic Year.

This is an excellent symposium on Military Medicine by twenty-seven contributors. In short, terse language all necessary and practicable information concerning medical service to men active in the defense forces is here presented to the reader. True to the requirements of present-day warfare, that is, total warfare, all phases of military medicine are presented in the knowledge that the active fighting forces are now functioning as groups of specialists in total warfare, fast moving, highly trained, technically integrated teams which must always be kept in efficient readiness to coöperate for coördinated action. It seems that this book should be made available to every physician, whether he be active in the front-line or the home defense forces.

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“Functional Pathology”

By: Leopold Lichtwitz, M. D., Chief of the Medical Division of the Montefiore Hospital; Clinical Professor of Medicine, Columbia University, New York.

Published by Grune and Stratton, Inc., New York, 1941. Price, \$8.75.

Functional pathology is that branch of medical science which analyses the causes, signs and symptoms of aberrations of normal function of the human organism. The book under review presents detailed résumé of careful scientific study of the various mechanisms, stimulations and processes which are thought to form the bases for the many abnormal or pathological complaints for the removal of the symptoms of which the patient consults the physician. The contents of the book is a record of the author's thirty years of thoroughgoing observation and study. Considering the fact that the author not only chose to study and record material contained within a sphere so large in scope and so difficult to penetrate as pathologic physiology, but also chose to record the fruit of his life-long work in a language which is not his native tongue, his work is one of the best of this type in the English language. By choosing new-sounding terms, such as mechanisms of defense, and angiospastic diathesis, for instance, he gives us a new kind of a look-in on complaints due to allergic action, angina pectoris, migraine, and others. As we learn to think of what is written in this and many other chapters, we will learn to better understand the large group of sufferers from so-called neurotic or hypochondriac or hysterical complaints, such as pains in head, neck, back and nerves, or “rheumatism,” or drowsiness, cold hands and feet, and many others. When a patient complains of definite physical discomfort the physician cannot afford to advise “to think nothing of it” without permitting the patient to go into full detail and permit himself to study in detail the possibility of localized momentary impairment of body fluid flow and equilibrium. Since this book is written as a direct result of the author's findings during his personally conducted studies, many of the opinions are at variance with the orthodox or typical textbook presentation of the subject—pathologic physiology; it should encourage more or less lively discussion among the experts of the orthodox school.

“Neuroanatomy”

By: Fred A. Mettler, A. M., M. D., Ph. D., Professor of Anatomy, University of Georgia School of Medicine, Augusta, Georgia.

With 337 Illustrations, including 30 in Color.

Published by The C. V. Mosby Company, St. Louis, 1942. Price \$7.50.

This very excellent textbook has been written primarily for the needs of the medical student engaged in the study of neuroanatomy and the practical application of the acquired knowledge during his clinical training. However, secondarily, it is a very necessary text for all graduates who wish or need to keep themselves well informed on the terminology of neuroanatomy, both old and new, as well as classic or Latin. The text is organized along progressive lines, always keeping in mind that the material presented must be considered as being necessary for the medical student of neuroanatomy. For further study more specific texts in the special fields of medicine are required. There is appended an excellent list of selected references.

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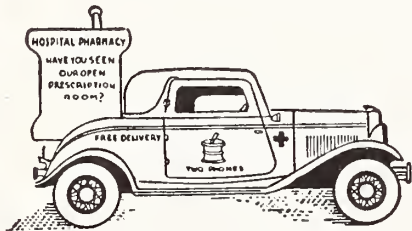
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*Subluxation of Distal End of Ulna**

C. W. RUHLIN, M. D., Bangor, Maine.

Subluxation of the distal end of the ulna has become a distinct clinical entity, to be considered as a complication of fractures and dislocations about the wrist joint. A study of the literature does not reveal a single large series of cases, due to the fact that a fractured wrist which functions well after union is considered a good result, and interest is lost when the acuteness of the fracture has passed and the patient is again attending to his daily routine. Unfortunately, there are a small number of these subluxations which produce symptoms and disability; then relief is sought primarily for pain and loss of function; secondly, for cosmetic reasons.



Illustration I—The typical deformity of subluxation of the ulna. This case was associated with a fracture of the distal end of the radius.

The etiological factor and pathological picture have remained constant throughout the literature. Trauma forceful enough to fracture or dislocate the distal end of the radius is sufficient to dislocate the distal end of the ulna, and is the outstanding factor. The direction of the force and anatomical structures should be considered. From the outstretched hand, the force is transmitted through the carpal bones to the distal end of the radius which fractures with a posterior displacement of the lower fragment. There is also a forcefully supinated and lateral force introduced, with a resulting rupture of the ulna attachment of the triangular ligament. The ulna has no articulation at its distal end with the exception of its articulation with the distal end of the radius, so it exerts a downward and lateral force which aids in the “rupture” of the triangular ligament and allows the wrist to widen, which, in turn, ruptures the anterior and posterior ulno-radial ligaments. The more elastic pronator quadratus remains intact.

* From the Service of Dr. A. Steindler, Department of Orthopedic Surgery, The State University of Iowa Hospitals.

- A—Radius
- B—Alna
- C—Posterior Carpal ligament
- D—Anterior Carpal ligament
- E—Triangular ligament
- F—Medial Carpal ligament
- G—Pisiform
- H—Radial Carpal ligament

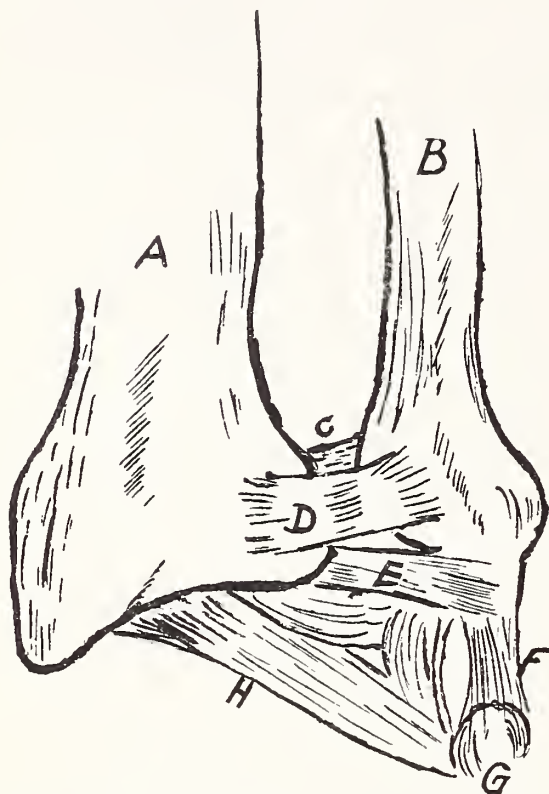


Illustration II — Original diagrammatic drawing showing the ligamentous structures which maintain the normal relationship between the distal end of radius and ulna.

Suppurative diseases which destroy the distal ulno-radial articulation and relaxes or destroy the retaining apparatus about the wrist joint will also produce a subluxation of the distal end of the ulna.

Arthritis has been mentioned as an exciting factor. The subluxation was produced by a relaxation of the ligamentous structures which undergo a degenerative change of the distal end of the ulna and the production of exostosis.

Jones and Lovett describe subluxation as Madelung's deformity and state that when the deformity is not due to one distinct force, it may be brought about by a series of minor trauma over a long period of time.

Among the short series of nine cases in the files of the Department of Orthopedic Surgery, eight were complications of fractures and one case was evidently of a congenital nature, showing that trauma was the out-

standing etiological factor in this particular series.

Key states that subluxation of the distal end of the ulna may occur as an isolated injury due to a hypersupination of the wrist joint.

The incidence of subluxation of the distal end of the ulna is not great, and the resulting deformity and disability are of secondary consequence when one is dealing with a fracture. Cotton reviewed the literature in 1912. Colles did not describe the pathological picture, and probably the first mention of a subluxation of the radio-ulnar articulation was described by Desault during a post-mortem examination. Forty years later, Dupuytren described one case. A review of the literature in 1907 revealed that only twenty-eight cases had been reported. The fact that the subluxation may occur without trauma has been shown by Eliason, also Magnusson, both writers stating that the literature offers fifty cases which have occurred without trauma. These cases were of the congenital type or those cases which develop from repeated minor trauma.

The signs and symptoms make the diagnosis of subluxation of the distal end of the ulna relatively easy, while the X-rays offer little or nothing toward an explanation of the symptoms unless the styloid process of the ulna is fractured. With fracture of the styloid, one may conclude only that the triangular ligament has been ruptured at this particular point of attachment. Arthritic changes in the bone will also be revealed by X-ray.

The distal end of the ulna may be luxated toward the ventral or dorsal aspect of the wrist, and there is usually a lateral deviation of the lower end. The head of the ulna is always prominent. It is because of this prominence that many people seek relief, and has in cases been the indication for carrying out an operative procedure which will be described later.

The mobility of the radio-ulna articulation tends to produce an unstable joint. The distal end of the ulna is freely movable, but always tends to return to the original deformity. The motion, although free, is springy in type and characteristic.

The motion of the wrist joint proper is little impaired, but pain is elicited when the forearm is supinated and pronated. The pain is usually located at the radio-ulna articulation or at the styloid process of the ulna. The supinatory and pronatory motions of the forearm is carried out by internal and external rotation of the shoulder joint.

The patient will complain of weakness of the wrist joint, and there is the inability to carry out finer movements. A history of trauma is especially important.

A review of the operative technique leads one to believe that each author and operator has his own method. A brief summary of many of these techniques will be made, and those which seem worth while will be dealt with in some detail.

Von Mayer, in 1925, advocated the use of an external band of leather or bandage to give support to the wrist. This seemed inadequate, especially in chronic cases.

Darrach's operation of resecting the distal end of the ulna did not inhibit motion of the wrist joint, but did tend to disturb the stability due to the loss of the distal end of the ulna.

Behrand nailed both bones together by open operation, but did not attempt to resect the ulna. Unquestionably, the anatomical landmarks were retained, but this technique eliminated the pro and supinatory motion of the forearm.

Bogna used the fascial strip and introduced the necessity of suturing the fascia to neighboring tissue in order to obtain stabilization. His fascial grafts were passed from the ulnar styloid to the carpal bones. Bogna operated in two cases and stated he had excellent results during five years, and stabilization of the joint was adequate.

Key and Cromwell drill through both ulna and radius, run a fascial strip through the drill holes and suture it. It would seem from the description that the supination and pronation of the forearm would be limited. They state that the period of post-operative immobilization should be six weeks.

Wilson and Cochrane list one case in which they got excellent results. They repaired the triangular ligament at its point of rupture. A fascial ligament was then sutured to the

ulna styloid and carried to the dorsum of the radius, where it was sutured. This was evidently a ventral dislocation. Their excellent result was based on the following facts: That they obtained a stable, painless, good-functioning joint that from all appearances was anatomically correct.

J. Allen Berry of New Zealand, in his article of January, 1931, written in the *British Journal of Surgery*, believed that the Gallie operation is the one of choice. This operation is rather complicated and may lead to a poor result should one get a pseudoarthrosis between the distal end of the radius and the ulna. An attempt is made to fuse the distal radial and ulna articulation. The ulna is then resected above this attempted fusion. The arm is placed in plaster until the fusion is complete.

Sauve and Kapandji, in the June, 1935, issue of the *Journal de Chirurgie*, describe the technique of Bazy and Galtier and compare it with their own. Galtier and Bazy make use of a fascial sling about the distal end of the ulna. This is done with difficulty, as it necessitates a resection of the pronator quadratus. A drill hole is made antero-posteriorly through the radius and the fascia threaded through it and sutured. The operation necessitates the use of two incisions, one on the dorsal and one on the ventral surface of the wrist. Their comment on this technique is that one encounters difficulty in the dissection.

Sauve and Kapandji, in describing their own technique, state that it is not difficult and offers a well stabilized, good-functioning arm, with a cosmetic correction and free from the possibility of non-union. To the technique of Gallie, they add a metal screw. A dorsal incision is made and the pronator quadratus resected at its broad ulna insertion. The radial ulnar articulation is resected to further fusion of this joint. A metal screw, 4 cm. long, is placed first through the distal end of the ulna, traversing the resected radial ulnar articulation, and entering the distal end of the radius. The ulna is then resected above the metal screw, as is done in the Gallie technique. A portion of the pronator quadratus is passed through the resected ulnar to prevent a union between the proximal and

distal fragments of the resected ulna. The authors report uniformly good results from this technique.

The final contribution to American literature was contributed by Eldridge F. Eliason of Philadelphia. Here, again, the fascial loop is made use of, but the mechanics have been taken into consideration. The technique, however, seems difficult. Two ventral and two dorsal incisions are necessary. The ventral and dorsal incisions are longitudinal and used to approach the dorsal and ventral aspects of the ulna and radius. Sharp dissection is used throughout. The pronator quadratus is dissected from its ulna attachment. Fascia lata is used and sutured longitudinally to form a tube-like structure. A drill hole is now made in the radius and traverses the distal end of the radius in a diagonal plane, i. e., from the medial inferior border to the lateral dorsal aspect. The fascia is drawn tightly and then sutured well to the dorsal surface of the radius. Eliason lists two cases that gave equally good results. The author had the chance to inspect the functional results of the fascial loop as he explored the dorsal ulna incision of one case and found the loop functioning well.

Jones and Lovett advise against operating on cases of subluxation of the distal end of the ulna. They recommend the use of a wristlet and a persistent course of physical therapy.

The following is a short resumé of the cases admitted to the wards and private service of this institution. Of the nine cases admitted, all were a result of trauma with the exception of one case. All nine cases admitted were treated by a conservative régime by use of a leather wristlet. Four of these cases came to open operation. All four cases were operated on by different operators, and four distinct techniques were used. In

three cases, a fascial strip was used. In one, Gallie's technique was used, with a resulting pseudo-arthritis, and had to be reoperated. This case ended in a good result.



Illustration III — Same case as illustrated above. The deformity was corrected by the Gallie technique.

All four cases reported a relief of pain. Two of the four cases reported had a slight subluxation of the distal end of the ulna, although they had relief of pain and a good-functioning joint.

CONCLUSION :

1. Subluxation of the distal end of the ulna will result from trauma and not infrequently found as a complicating factor resulting from fractures about the wrist joint.
2. Subluxation of the distal end of the ulna is a distinct clerical entity which produces pain and instability of the wrist joint.
3. Cases which do not respond to conservative treatment obtain relief from operative procedures.

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Indiana, Kentucky, New Jersey, Oregon and Washington are on the roll of states which have laws calling for a specific examination of all school personnel in contact with children. Other states vary widely in their programs but in most states there are some

communities offering voluntary tuberculin tests or local board rulings requiring specific examinations for tuberculosis of applicants for teaching positions. — *Report of Nat'l Tuber. Assn.*, Sept., 1941.

*Medicine and Air Supremacy** **

By JOHN F. FULTON, M. D.,† New Haven, Connecticut

George Cheyne Shattuck, the younger (1813-93), whose father, George Cheyne Shattuck, the elder (1784-1854), left the bequest that led to the founding of this lecture-ship, died early in 1893, and Osler,¹ who gave the fourth lecture of the series in that year, chose for his subject "Tuberculous Pleurisy," a theme in which the younger Shattuck had been interested since his early days in Paris, when he studied under the great French clinician, Louis. Shattuck's son, Frederick Cheever Shattuck (1847-1929) was, like his father and grandfather, a great force in New England medicine. The Shattucks were men of humor, forthright candor and passionate loyalty to the traditions of this country. Their humor is well illustrated in a lively encounter between Frederick Cheever Shattuck and Harvey Cushing, who gave the Shattuck Lecture in 1913.² Dr. Shattuck had read Cushing's account of the Western Reserve and its traditions,³ and was horrified to find the word tomahawk misspelled. Dr. Cushing, his secretariat and the Cleveland proofreaders had all passed "tommyhawk" — spelled like "tommy-gun." This was too much for Frederick Cheever, who immediately commandeered conveyance to the Peter Bent Brigham Hospital, and, wearing a pair of enormous plus fours, dashed in the side door of Dr. Cushing's office to tell him that the Moseley Professor of Surgery, who had been born in the Western Reserve out among the Indians, should know the spelling of tomahawk; not content with this, he wrote Cushing a letter referring him to the *Century Dictionary*.

* * *

I have said that the Shattucks were men of intense loyalty to this country's traditions, and when your committee requested aviation medicine as the subject of this discourse, it seemed obviously a theme wholly appropriate

for a lecture devoted to the memory of this remarkable line of American physicians; moreover, a topic with military implications is not without precedent, for just twenty-five years ago,—in June, 1917,—Dr. Walter B. Cannon gave a Shattuck Lecture on traumatic shock.⁴ In accepting the honor, I have, however, taken on a heavy responsibility, and one that for various reasons is embarrassing.⁵

The National Research Council and the Office of Scientific Research and Development have followed the policy of classifying as "confidential" or "secret" all topics having to do with offensive instrumentalities of war. The airplane is clearly such an instrumentality, as are many of the devices within the plane designed to improve the performance of the pilot in his rapid, high-altitude maneuvers; so that medicine, perhaps for the first time in its history, has come to be divided, so far as war is concerned, into offensive and defensive spheres. Advances that have to do with increasing the effectiveness of human performance in combat become military secrets, and cannot now be openly discussed. Defensive measures, on the other hand, designed for treating the wounded, either civilian or military, or for prophylaxis, as by inoculation, fall into the category of defensive measures and can be freely described. Aviation medicine falls squarely across the broad categories of offense and defense, and I am therefore obliged to devote attention primarily to the defensive phases of the subject.

It has become obvious, even to the most casual observer, that air supremacy will determine the outcome of the present war. Shipping still has vast importance and we look carefully to our tonnage, but all the ships of the United Nations would become virtually useless without command of the air. Supremacy in aviation is not wholly a ques-

* The Shattuck Lecture, delivered at the annual meeting of the Massachusetts Medical Society, Boston, May 26, 1942.

From the Laboratory of Physiology, Yale University School of Medicine.

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** Reprinted from *The New England Journal of Medicine*, Vol. 226, No. 22, Page 873.

tion of more and faster planes with greater firing power than the enemy. This, to be sure, is important, but equally so is the problem of securing well-selected, well-trained and adequately protected flying personnel. The performance of modern aircraft has far outstripped the physiological limitations of the pilot. The newer combat planes can fly higher than is compatible with life, even when the fliers are breathing pure oxygen. They can perform maneuvers causing centrifugal force of such intensity that blood tends to be drawn away from the brain, a condition that results in transient blindness (blacking-out) and unconsciousness. And, finally, the range of the modern four-motored bombers—some of which can remain for twenty-four hours in the air—has raised problems of pilot fatigue, severe stresses and strains from cold, psychological tension and loss of sleep that impair the performance of flying personnel. It is the responsibility of medicine in its broadest sense, including psychology, psychiatry, physiology and the special branches of clinical medicine, to protect flying personnel from these and many other hazards that they face. The role of the physician in both the offensive and defensive phases of the war effort has therefore become increasingly vital for broad military strategy.

Air supremacy involves not only flying personnel but ground personnel. It is estimated that for every man in the air there are nine or ten men on the ground, both in civilian airlines and in military aviation; men on the ground are as essential as the men in the air, and if the Army should wish 100,000 pilots it must recruit 1,000,000 men. Air supremacy also extends to the men in the aircraft factories, who are exposed to special hazards peculiar to aircraft production. I cannot speak of industrial hazards in aircraft plants, but they are real and their successful handling rests with industrial physicians. In an aviation plant recently visited, 600 from a total of 30,000 employees were treated daily for accidents or illness occurring in the plant—that is, 2 per cent of the total personnel became ill or were injured each day. This is far higher than one would wish or anticipate, and yet with the vast expansion of the past twelve months,

such injuries are to some extent inevitable. In a plant that is not expanding, injury rates diminish, but usually only as rapidly as the measures taken for their prevention. The need for industrial physicians in all phases of the war effort continues to be enormous.

To give a more general idea of the scope of aviation medicine, I shall describe a classified bibliography of the subject that is now in the process of publication.

LITERATURE OF AVIATION MEDICINE

In recent months, my associates, Dr. and Mrs. Ebbe C. Hoff, and I have had the responsibility of searching out, listing and classifying all available literature bearing on the medical aspects of aviation. The project was proposed nearly eighteen months ago, and the labor is now completed, for the bibliography will be published within a few weeks.⁶ The subject matter covers a vast range, the principal topics being indicated by the main chapter headings of the bibliography:

1. History and General Aspects of Aviation Medicine.
2. The Special Physiology of Aviation. (This section is divided into nineteen subsections, including all the organ systems and special senses.)
3. The Special Pharmacology of Aviation.
4. The Special Psychology of Aviation.
5. Aeromicrobiology. (Bacteriology and immunology in aviation and high altitudes.)
6. Diseases and Accidents in Aviation and Conditions Simulating Flight.
7. Selection and Assessment of Efficiency of Flight Personnel.
8. Training, Performance and Fatigue of Flight Personnel.
9. Protection of Flight Personnel: Preventive medicine and therapeutics of aviation.
10. Aviation and Public Health.
11. Organization of Aviation Medicine.
12. Special Problems.
13. General Studies in Aviation Medicine.
14. Bibliographies.

It may be of interest that, although approximately six thousand separate items were found, the author index contains some nineteen thousand names, from which one must infer that those who write on the subject generally write in trios. And this expresses what some of us had gradually come to realize: that research endeavor in this field is inevitably coöperative. The flight surgeon uses a pilot or some fellow flight surgeon as a subject of an experiment, sometimes in the air, sometimes in a decompression chamber and sometimes in a human centrifuge. When decompression experiments are involved, five or six people generally constitute a team, and their names may appear as co-authors of the report.

The bibliography itself cuts across the scientific periodical literature of all phases of science in all countries, articles from about eight hundred journals having been cited. Of these, less than half are medical journals.

In passing, one may mention that from the bibliographical standpoint it would be impossible to cite a vast literature of this sort if one restricted abbreviations to a system worked out purely for medical journals. On this point, we were fortunately forewarned and at the start adopted the conventions of *A World List of Scientific Periodicals*⁷ as a basis for abbreviations; this made possible the ready citation in conveniently abbreviated form of any scientific journal in any language, without serious confusion.

In surveying this literature, we were impressed by the large number of Japanese articles on aviation medicine. Much more striking, however, was the fact that about thirty Russian journals were represented in the bibliography, embodying a vast and well co-ordinated literature on the subject—far ahead, incidentally, of that of Japan.

There is a widespread feeling that bibliography is a dull preoccupation reserved for spinsters and old maids of the male sex. Actually, it is far from that, for careful analysis of the literature of any subject reveals trends of research, and in the bibliography under consideration, it has exposed trends and emphasis of far-reaching international significance. The Germans, for example, began publishing papers on the effects of high acceleration in aircraft five years before the flight surgeons of the United Nations had given any general consideration to the

problem, and everyone must realize what the dive bomber has meant to the Axis war effort. For better or for worse, the Allies have depended largely on horizontal bombing, but with our fast fighters we are quickly learning the significance of high acceleration, and are studying the modes of counteracting its effect on aircraft personnel.

PROBLEM OF ANOXIA

The responsibility of carrying on research in the more academic phases of aviation medicine falls largely to the civilian laboratories, although one looks forward to research institutes within the military services that will continue with active investigative endeavor in times of peace. But in the present war crisis, it is clearly up to the civilian scientists to undertake the long-range problems, and in aviation medicine the most basic of these is a study of the adjustments of the body to anoxia. There are many aspects of the problem as yet imperfectly understood,—individual variations, variations of the individual,—factors that aid the body in making the adaptations, all of which involve fundamental physiological, biochemical and endocrinological research; the aim in view is to increase knowledge of the processes involved and to search out ways of improving human performance in the higher altitude ranges. To use the language of aviation, the basic problem is to raise the aviator's "ceiling." But from the purely academic standpoint, we wish first to extend our knowledge of the processes involved.

In his excellent monographic review on the effects of anoxia in the body, Van Lier⁸ gives a broad picture of the manifold changes that occur when the body is exposed to low oxygen partial pressure. In adjusting, for example, to a fall of half an atmosphere, giving an equivalent altitude of 18,000 feet, there is a veritable ionic cataclysm between blood and tissues and renal tubules, accompanied by a shift of the blood pH to the alkaline side, with an extensive loss of sodium and chloride ions in the urine. Van Lier, however, makes little attempt to elucidate the important problem of how these ionic shifts are integrated. What organ responds in the first instance to the lowered oxygen partial

pressure? From the work of Cannon⁹ and of Gellhorn and his collaborators,^{10,11} it is known that the sympathetic system is exquisitely sensitive to anoxia and that many of the adjustments arise from the direct stimulating action of low oxygen tension on the central neurons of the sympathetic system. From the sympathetic comes the reflex mobilization of idle red blood cells from spleen, bone marrow and other reservoirs, and a vast series of vasomotor readjustments designed to improve the circulation of vital organs is brought about, also reflexly, through interaction of the sympathetic and parasympathetic systems. No one, however, appears previously to have suggested that the ionic shifts essential for anoxic acclimatization are likewise mediated through reflex channels. The evidence to date is incomplete, but suggestive, and it turns largely on recent developments bearing on the part played by the adrenocortical hormone in anoxia.

Anoxia and Adrenal Cortex

Two papers published by French flight surgeons at the end of the last war suggested that the asthenia that certain aviators developed after repeated missions to high altitudes was due to adrenal insufficiency. Ferry¹² observed urinary retention of nitrogen and alkali, low blood pressure and pathological heart sounds in a group of over-fatigued aviators, and he was led on the basis of these findings to the conclusion just mentioned. The paper of Josué¹³ was based on a study of physiological and psychological alterations in fatigued pilots. But since at that time there was no clear distinction between the adrenal medulla and the cortex, the suggestion can remain only of historical interest. More recently, Armstrong and Heim¹⁴ found on exposing rabbits for four hours a day to an atmosphere equivalent to 18,000 feet that, in the early stages, hypertrophy of the adrenal gland resulted and was followed later by degenerative changes in the adrenal cortex. In his well-known book on aviation medicine, Armstrong¹⁵ later pointed out that over-fatigued pilots, especially those subjected to many high-altitude missions, developed symptoms strikingly similar to those seen in early Addison's disease.

Sundstroem,^{16,17} whose early studies on the

adaptation of man to high altitudes are well known, was led some years ago to study the relation of the adrenal glands to acclimatization and, independently of Armstrong and Heim, confirmed the existence of adrenal hypertrophy resulting from anoxia; in his monograph about to appear from the University of California Press, he¹⁸ shows that the degree of adrenal hypertrophy can be roughly correlated with the extent to which the oxygen partial pressure is diminished. All animals exposed to diminished atmospheric pressure during the period of acclimatization tend to lose weight. This loss of weight is shared, according to Sundstroem, by all organs of the body except the adrenal cortex (and possibly the kidney); the adrenal hypertrophy is therefore regarded as something specific to the anoxic state. On the basis of the hypertrophy, Sundstroem asked himself whether this might not indicate increased secretion of the glands. He set out to obtain a direct answer to the question in two ways. In the first place, adrenal steroids were extracted from tissues, such as the heart and liver, from control animals at sea level and from groups exposed to the high-altitude ranges; the tissues of the latter animals invariably showed a larger proportion of adrenal steroid than the corresponding tissues in animals at sea level.

More impressive, however, was the study of Giragossintz and Sundstroem,¹⁹ in which it was found that adrenalectomized animals could not survive in the high-altitude ranges and that it took twenty times more crude extract of the adrenal cortex to maintain rats at 20,000 feet than it did at sea level. This clearly suggested that to maintain the body at high altitude increased secretion of adrenocortical extract is essential.

The problem has recently been taken up anew in my laboratory by Langley and Clarke,^{20,21} who have confirmed the fact that adrenal hypertrophy develops in rats exposed to 20,000 feet; and in adrenalectomized animals, they find that at sea level the maintenance dosage for an average adult rat is 0.5 cc. of total extract a day (Wilson), or 0.03 mg. of desoxycorticosterone acetate. At 20,000 feet, a rat on this maintenance dose rapidly loses weight and dies, and Langley

and Clarke find that 2 or 3 cc. of total extract is essential at that altitude and that 1 mg. of desoxycorticosterone is required. When acclimatization has taken place, however, after one week at 20,000 feet, the maintenance dose can be reduced to the sea-level amount.

Langley found, as had Gerald Evans,^{22, 23} that exposure of a fasting rat to an altitude of 20,000 feet for twenty-four hours causes an elevation of both the blood-sugar and liver-glycogen levels. This suggests that Compound E, the carbohydrate fraction of the adrenocortical secretion, is mobilized in conditions of anoxia. But the desoxycorticosterone fraction appears also to be mobilized, since Langley has found in dogs exposed to an altitude of 20,000 feet that a marked increase occurs in sodium and chloride and also in potassium excretion. Following adrenalectomy, dogs subjected to anoxia failed to show the sodium and chloride excretion, although potassium loss continued. The failure of the sodium, chloride and carbohydrate adjustments in adrenalectomized animals exposed to anoxia indicates that the presence of adrenal extract is apparently essential to make the bodily adjustments to altitude, and one naturally wishes to know how the adrenal cortex is specifically activated—whether directly by the blood stream, or in some way through the nervous system. Langley,²⁰ in discussing the question, remarks: "It is possible that the increase in sodium chloride and urine volume observed in the normal animal exposed to anoxia was brought about by increased excretion of these specific fractions [desoxycorticosterone] of the adrenal cortex. This observation suggests that the adrenal cortex is capable of secreting certain components of the whole extract independently of the others."

The recent important work of Dr. George Thorn,²⁴ the newly appointed Hersey Professor of Medicine at the Harvard Medical School, has also established in animals that a large increase in sodium, chloride and potassium excretion occurs on exposure to anoxia, and he has found conspicuous nitrogen retention in man under these conditions. Treatment of adrenalectomized animals with the so-called "carbohydrate-regulating" factor caused a striking increase in sodium, chloride and water excretion, but no increase in potassium. Thorn and his collaborators²⁵⁻²⁷ have just given an account of the effect on rats, rabbits and dogs of intermittent exposure to altitudes equivalent to 18,000 and 27,000 feet. They have confirmed Armstrong and Heim's¹⁴ observation that adrenal hypertrophy develops in consequence of such repeated exposure in rabbits (and also rats); they have found, moreover, that the adrenalectomized animal fails to survive repeated "flights" to these altitudes, and that their capacity for adjustment can be restored by administration of adrenocortical hormone.

From the studies of Collip²⁸ and his students, it appears probable that the adrenal cortex is normally activated, not by the blood stream directly, but rather by the adrenotropic hormone of the anterior pituitary. The ingenious work of Uotila^{29, 30} indicated that the thyrotropic hormone is under the direct control of nerve centers in the hypothalamus whose axons passed down the pituitary stalk, and that the reaction to cold results from thermal stimulation (via the blood) of the hypothalamic centers. Since the adrenal cortex also plays a large part in the reaction to cold and to anoxia, it is likely that the primary activation of the adrenal cortex comes from the hypothalamus through the adrenotropic hormone. Favoring this is the fact, originally disclosed by Gerald Evans²² and recently confirmed by Catchpole,³¹ that the chronically hypophysectomized rat has no greater altitude tolerance than the adrenalectomized animal.

All this brings one to a far clearer concept of the mode of integration of the bodily adjustments to altitude. The part played by the respiratory center in the medulla has long been recognized. Mobilization of red cells and the reflex adjustments of the heart and circulation arise in part from direct stimulation of the chemoreceptors of the carotid body, as well as from the direct effect of low-oxygen tension on the sympathetic system; there appears to be further reflex control, through the centers in the hypothalamus, of the ionic pattern and carbohydrate level of the blood. Undoubtedly, when the complete picture has been put together, the posterior pituitary gland will also be found to play a part in these adjustments through the influence of its antidiuretic hormone on the kidney tubules. This strongly suggests that the bodily adjustments to anoxia are in large measure integrated by the central nervous system.

SAFETY IN CRASHES

The military phases of aviation medicine are rigidly practical. General academic research is encouraged at some of the larger bases and institutions, but for the immediate purposes of the war effort a group of practical problems has arisen for which solution is

required in a matter of months. Combat fliers, for example, are constantly exposed to rough landings under black-out conditions, or to crash landings when machines are disabled, and the question arises whether mechanical factors for safety, similar to those introduced within the past few years in automotive design, cannot be adapted to aircraft. This raises the question of the factors responsible for injuries, fatal and otherwise, in air crashes. Close study of the large literature on air crashes indicates that impact of the body, especially the head, with some solid part of the aircraft is generally the cause of death or of serious injury, even in minor accidents. When the body or the head strikes something that yields, as when the flier is thrown through a fabric roof or the windshield, the victim generally escapes serious injury. What, then, are the basic factors that govern the degree of injury in such circumstances?

The most significant clues have come from two sources: De Haven's³² analysis of non-fatal suicidal leaps from high buildings, and a study, for which Denny-Brown is largely responsible, of the effects of sudden acceleration on the head.

Nonfatal suicidal leaps. In a series of recent papers, De Haven^{32,33} has drawn attention to some remarkable cases of suicidal leaps from high buildings that proved not to be fatal. A number of such cases—in which all data were available concerning the exact distance of the fall, the position of the body during the fall and on landing, and the character of the surface that the body struck—permitted him to draw certain generalizations: in the nonfatal leap, the victim generally landed flat on the back or flat on the stomach, so that the long bones or the head was not driven into the trunk. But more interesting is the fact that a slight degree of cushioning of the head, as in landing in a garden plot instead of on a cement sidewalk, prevented concussion and serious injury of other parts. A typical case may be cited³³:

A twenty-one-year-old woman, mentally depressed because of an amorous disappointment, took a room on the tenth floor of a hotel, consumed half a bottle of whiskey, and leapt in her nightdress to the street below—a free fall of 93 feet. She landed squarely on her back

in a small garden in which the earth had been freshly turned, her head, back and legs sinking into the earth to a depth of 4 to 6 inches. A hand, which struck the cement border of the garden plot, suffered a fracture to a small bone in the wrist, but except for this and a fractured rib she was uninjured, suffered no concussion, and could walk without assistance. Her height was 5 feet, 7 inches, and her weight 115 pounds.

The important point about this and similar cases is that the head experienced a brief interval of deceleration, instead of an abrupt impact on a rigidly solid object. De Haven calculates that the girl's body was falling at a rate of 73 feet a second (50 miles an hour) at the time of the impact, and that the deceleration distance, which amounted to 4 to 6 inches of garden turf, must have taken place in a small fraction of a second; the rate of deceleration was 166 g ($1\ g = 32$ feet per second per second). There is a vast difference between being decelerated from 50 miles an hour in 0.001 second and being decelerated in 0.1 or even in 0.01 second. Little attempt has been made so far to measure these brief but vital deceleratory time intervals in relation to injury.

A more complex case occurred several months ago in New York and is mentioned because of the relatively long distance of the fall. A woman leaped from the seventeenth floor, falling 144 feet, and landed in a "steamer-chair" position on a metal ventilator box 24 inches wide, 18 inches high and 10 feet long. The force of her fall, De Haven points out, crushed the structure to a depth of 12 to 18 inches. Both arms and one leg extended beyond the area of the ventilator, with resultant fractures of both bones of both forearms, the left humerus and the left os calcis. The woman remembered falling and landing, but had no marks on her head or subsequent loss of consciousness. She sat up and asked to be taken back to her room. No evidence of abdominal or intrathoracic injury was found, and X-ray films failed to reveal other fractures. The minimum gravity increase in this case was 80 g (average, 100 g).

Stunt drivers. A practical application of the principle of gradual deceleration has long been used by circus performers and stunt

drivers, who deliberately drive a car at 60 miles an hour into a brick wall. Their trade secret is to jump into the back seat of the car and lie hard against the rear of the front seat, a hand or an elbow being placed between the side of the head and the back of the front seat. The car then crashes into a solid object and the superstructure crumples up against the wall, but in a finite time interval sufficient to give adequate deceleration of the head and the rest of the body. If the head or the body were thrown without having the benefit of the car's own crumpling deceleration, "Reckless Peter," one of the best known of these stunt drivers, could be reckless no longer.

Aircraft³⁴ and automobiles, at the instigation of the National Safety Council, have been studied from the point of view of diminishing hazards to the head in the event of crash, and flying personnel are being indoctrinated with the principles of how to "take" crashes. For some pilots, this is instinctive, but the fact that the head and body should be placed hard against some solid part of the structure of the machine when a crash is anticipated is not commonly appreciated. Any yielding substance placed between the head and the solid area of superstructure has cushioning value in making deceleration more gradual; but if the head is free and hurled against the solid object at the time of a crash, the injury sustained is inevitably severer. Those stationed in the rear of the automobile or plane when it strikes a solid object have more opportunity for deceleration than personnel situated farther forward.

Experimental concussion. Denny-Brown and Russell³⁵ have approached the problem in the reverse direction,—namely, by analyzing factors of acceleration in relation to injury rather than through deceleration,—but the principles in the two approaches are the same. Denny-Brown and his collaborator have found that when the head of an animal is struck by a moving pendulum, concussion does not occur unless the head is free to move, free to be accelerated. If a head, hard against an anvil or a brick wall, is accidentally struck, a nasty fracture may result, but the subject is not rendered unconscious; for this an acceleration of the head in space is essential.

In Denny-Brown's experiments, the rate of acceleration essential to cause concussion was relatively high: a critical value of 46,000 feet per second per second. If the head is cushioned, as by a helmet, the same blow may give the same ultimate velocity after the head has moved 5 mm., but if it does not start off with the same high acceleration, concussion is prevented. The implications of this in relation to crash helmets for absorbing blows from falling debris and flying bomb fragments are obvious, and it is no longer a secret that both the British and the Germans have a mandatory regulation to wear crash helmets in all operations of mechanized units, especially motorcycles. Such helmets have enormously diminished the number of serious head injuries sustained on being thrown, especially during blackout conditions.³⁶

Ruptured intervertebral disks. A syndrome common in the military services, especially in air-force personnel, that is not often diagnosed is that of the ruptured intervertebral disk.³⁷ When men are maneuvering in aircraft, accelerations as great as 8 or 9 *g* may occur, that is, eight or nine times the normal acceleration of gravity, which cause strains on the vertebral column of intense character, making the weight of the torso at the lumbosacral articulation equal to about 800 pounds if the body weight of the pilot is 200 pounds. One means of lessening the physiological effects of high acceleration is the assumption of a crouched posture, which brings the lower extremities nearer the heart and thus diminishes the length of the hydrostatic column of blood subjected to acceleratory force.³⁸ There is no doubt that the assumption of such a posture increases tolerance to high degrees of acceleration, but it also greatly increases strain on the lumbar vertebrae, the annulus fibrosus and the pulposus nuclei between the vertebrae. In these circumstances, one or more of the nuclei may rupture and herniate into the spinal canal, and thus may give rise to pain from compression of sensory-nerve trunks and rootlets. This accident, which is also common in civil life, especially in young adults, is one of the most frequent causes of acute and incapacitating sciatic pain.

The syndrome of the ruptured intervertebral disk is one with which every flight surgeon should be familiar, for the injury not only occurs as a result of high acceleration in aircraft but also is a common complication of injuries sustained as a result of a crash landing. Mild cases improve on simple immobilization, but there is a growing conviction among neurosurgeons, especially Spurling,³⁷ of Louisville, and Love,³⁹ of the Mayo Clinic, that when pain is enduring even with immobilization, operative removal of the ruptured disk is the only satisfactory therapy. Group Captain Symonds,⁴⁰ of the Royal Air Force, reports on the British experience with ruptured disks and expresses his doubts of the wisdom of operation, for in his experience few, if any, cases can be returned to active service. Spurling,⁴¹ on the other hand, reports that in his noncompensation group fully 75 per cent have returned to their former occupations within three months; the details of treatment must, however, be left to the neurologist and to the neurosurgeon.

From the point of view of aviation medicine, the importance of the intervertebral disk lies in the fact that one must be familiar with the condition so as to make positive diagnosis possible, and the flight surgeon should be interested in any procedure or device that will lessen the incidence of this accident in combat operations. Various forms of mechanical restraint, such as seat belts and shoulder harnesses, have been proposed to prevent flying personnel from being thrown or overstressed during landings and high-speed maneuvers, but there is as yet no unanimity of opinion on this point, and the matter is one that clearly deserves intensive study, not only for the purpose of diminishing lumbosacral injuries but also to reduce the large numbers of unnecessary injuries to the head sustained in combat maneuvers and crash landings.

AFTERMATH OF INJURY

The flight surgeon and other physicians who attend air-corps personnel not only must heed the problems of the air cadet in training or the pilot engaged in combat operation, but he must also consider the management of incapacitated flying personnel. Some may be

wounded by machine-gun bullets, and others may be hurt less seriously by a crash landing or a violent air maneuver. Still others may deteriorate from fatigue, or from too many missions at a high altitude. A medical officer in charge of any command must be able quickly to distinguish the three types of incapacity and must know how best to manage each one—whether it is a physical injury from gunfire, an injury from crash or maneuver, or a psychological insult from anoxia.

Watson-Jones⁴² in a recent stimulating paper, one of the few released for public consumption from the Royal Air Force, has discussed the ultimate problem with which all flight surgeons will sooner or later be faced, namely, the rehabilitation of personnel disabled by combat operation. He begins his article with a story of an injured air gunner.

An air gunner was admitted to a civilian orthopaedic hospital in November, 1940, for the treatment of a torn and displaced semilunar cartilage. In August, 1941, no less than ten months after admission, he was still in hospital and still totally incapacitated. Why was recovery so long delayed? What possible explanation could there be? The diagnosis had been correctly made and a skillful operation performed. The wound had healed by first intention; there was no infection, arthritis, or surgical complication. Daily massage had been continued, but the muscles were still wasted and weak. Two manipulations had been performed under anaesthesia, but movement was only half of normal. The gait was slow and hesitant; he limped; he could not run—he had never tried to run. The medical officer blamed him because "he would not coöperate," because he was disinterested, depressed, and resentful. He was certainly depressed, for after ten months the incapacity was more complete than on the day of admission. He was disinterested because, in his own words, "nobody takes any notice, and it looks as if it is hopeless." He was resentful because he could not believe that the fault was his. Had he not been told that "the nerve to his knee was cut?"

He was transferred to one of the orthopaedic rehabilitation centres of the R. A. F. Medical Service. He saw the sky, the sea, the open spaces. For many months he had seen only the stone walls of hospital wards, the stone walls of massage rooms, the stone walls of many corridors. In his new surroundings there was a lounge and writing-room; there were tasteful decorations and flowers, a varied menu, and an atmosphere of well-being and contentment. After a few days he smiled. There was sometimes a sparkle in his eye. He sensed a spirit of optimism and was reassured. His difficulties were explained, and he was taught special exercises. He learned to walk and then to run. He became an enthusiast and worked in the gymnasium, played on the fields, swam in the pool, cycled on the track. In the evenings he attended lectures and concerts, or played billiards and table-tennis. Time raced past, for he was busy. He became bronzed and fit. He laughed and was full of the joy of life. In seven weeks he returned to his unit and to full duty. The "nerve in his knee" was forgotten.

Ten months—total incapacity; seven weeks—full recovery: that is the story of rehabilitation in one air gunner. But is this an isolated case from which no conclusion should be drawn?

We must face the fact that our air forces will bear the sting of heavy casualty; convalescent homes for study and rehabilitation of air-force personnel must be developed on a national scale, with a well-planned program for analysis of injuries peculiar to modern air combat, as well as facilities to meet the needs—physical and spiritual—of rehabilitation.

Watson Jones's recommendations concerning the injured man in the air service are essentially conventional, at least conventional to our nonmilitary eyes in this country. But many military hospitals cannot study their cases from a scientific standpoint, and there may be many that would do for ten months what was done for the air gunner of Watson-Jones's report. It is highly important that the injured men from Pearl Harbor, Bataan, Corregidor, Cebu, Panay, Australia, Singapore, Java, India, Africa, the Mediterranean and the North Atlantic sea lanes be given a sense of the importance of the contribution they have rendered, be given a sense of the part that they may still be able to contribute if put back into active service. I am not speaking as a psychiatrist, or even as a practical surgeon, but essentially as a layman. I have, however, had opportunity to survey the literature and have seen hospitals filled with sick men, seriously injured men, of the fighting forces of Britain; I cannot too vigorously emphasize the value of maintaining the morale of the injured man, of allowing him to take part in the care of others more seriously incapacitated than himself, and of giving him opportunity to discuss combat problems with those who have been placed before their injury in military situations similar to his own.

* * *

Expansion of the air corps of both the United States Navy and Army has created an unprecedented need for medical personnel. The Navy within the year expects to complete training of more than 1,000 air medical officers, including several hundred flight surgeons, and Colonel David Grant, Air Surgeon of the Army, authorizes me to say that the

Army Air Forces have now in service some 2,300 medical officers and that an expansion is expected within the year to bring a total of 19,000 flight surgeons and aviation medical officers. If this demand is filled, it would alone absorb all the graduates of Class A medical schools in the United States during the past three years.

This war is probably more challenging to the physician than any other conflict in the world's history. Those who serve, especially those who serve the air forces, must have special knowledge; they must be cognizant of this, cognizant also of the part that they can play in maintaining air supremacy, and of re-establishing the right of free men to live in peace.

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The Platform of the American Medical Association

The American Medical Association advocates:

1. The establishment of an agency of the federal government under which shall be coördinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need, for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical

services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

Editorials

Industrial Health

The Officers of your Association realizing the importance of Industrial Health in this war appointed a Special Committee on Industrial Health in February of this year with Stephen A. Cobb, M. D., of Sanford, as Chairman. This Committee met and organized during the annual meeting at Poland Spring and is now under the Chairmanship of Joseph B. Drummond, M. D., of Portland. Elsewhere in this issue will be found the program of this Committee which will be a feature of the Annual Conference of Maine Safety and Industrial Health to be held this year at the Eastland Hotel, Portland, Maine, on Thursday and Friday, September 17th and 18th.

An invitation has been extended to all members of the Association interested in Industrial Health to attend this meeting, and a request made for the names of these members.

Our all-out war effort cannot attain the peak of its efficiency unless an effective program for the prevention of accident and illness among industrial workers is maintained.

A large number of our industrial workers are being shifted to new jobs and are already working under conditions of increased stress and strain, and called upon to operate machines to which they are unaccustomed, and face new industrial hazards.

We must bear in mind the fact that our armed forces are entirely dependent upon industrial production for the equipment with which to win this war, thus the industrial worker becomes of paramount importance to our war effort.

It is, therefore, the task of Industrial Medicine to maintain Industrial Health and so assure Industrial Efficiency.

Members in Military Service

In the County News and Notes Section of this issue of the JOURNAL we are printing a list of the 121 members of the Maine Medical Association now in Military Service as received from Brig. Gen. John G. Towne, M. C., Ret., State Chairman, Procurement and Assignment. In addition to this list there are 27 doctors of Maine in Military Service who are not members of the Association. General Towne has advised us that there are about 36 doctors with applications pending, and that 50 more will be needed before January to meet Maine's quota.

We are proud of these medical men now in Service for we know the sacrifices that they have had to make in "joining up."

We are proud, too, of our medical men on the home front, who are also making sacri-

fices, the men who will have to cover for those in service, many of whom would like to join their comrades in the Army or Navy but whose duty it is to remain at home.

In succeeding issues of the JOURNAL will be added the names of our members as they take their place among the Medical Officers of our armed forces.

Members entering military service will help the Secretary's office if they will send in the address to which they wish their copy of the JOURNAL sent. It is hoped that the JOURNAL will reach each of you regularly.

Maternal and Child Welfare

To the Members of the Maine Medical Association:

Your committee on Maternal and Child Welfare, appointed after the last annual meeting, considers that its function is to stimulate the interest of the family physician in prenatal care, the care of the newborn, and in supervision of the mental and physical development of children.

The need for such interest is more now than ever before. Our record in the matter of maternal and neonatal mortality and morbidity needs improving. The increased marriage rate means that more obstetries will be done. The crowding of workers' families in manufacturing areas will bring about a need for immunizations in children and supervision of their nutrition and mental hygiene. With it all, there are fewer physicians. Therefore the remaining ones should interest themselves in preventive medicine, not only for the public good, but also for their own sakes, since prevention is easier than cure.

The physicians of Maine should strive to assure every pregnant woman that she can and must have prenatal care. We must reduce to a minimum the number of newborns suffering from birth injury because a pelvic disproportion was undiscovered, and strive to eliminate the tragedy of a maternal death. Eclampsia is too frequent, especially since it is, with rare exceptions, a preventable disease.

Your committee suggests that each county society devote one of its meetings to prenatal and neonatal care. If any society wishes, the committee will provide speakers or material. We urge that each county association stimulate the interest of its own community in prenatal care. Work as a group or as individual missionaries. Granges, church societies, parent-teacher associations, legion auxiliaries are excellent groups to start on. It is easy to interest groups of women in matters pertaining to children. These groups are a fertile field for missionary work in preventive

medicine. Interest the women and they will form a great weight of public opinion to get every pregnant woman to a doctor's office. Then it is up to the doctor to give her an adequate examination and so do his part to prevent maternal morbidity and mortality. If the examination is casual, the patient will feel that it cannot be important, and so probably will not come again.

In communities where the patients are at a distance from a doctor, and among the low income groups, the services of the visiting nurse can be utilized. She can take blood pressures, check on the patient's symptoms, and see that she sends a specimen of urine, by mail if necessary. There are objections to this, of course, but in these days of difficult travel, conditions cannot, in many instances, be ideal. At least, the nurse's check is better than no check at all, and, if she receives the doctor's support, she will do all she can to get patients to the office. The Maternal and Child Health Bureau at Augusta will furnish any physician the name and station of the nearest visiting nurse, supply pamphlets for distribution to patients, and help individuals or groups in any possible way to improve the work.

Your committee proposes to have articles in the JOURNAL dealing with the subjects of maternal and child welfare. These will be wholly practical in nature. Comments and criticisms will be welcome even if they are adverse. We wish to stir up interest. Any member of the committee will answer inquiries or comments promptly and will welcome suggestions. The members are Doctors A. W. Fellows of Bangor, chairman (responsible for anything you do not agree with); G. E. Dore, Guilford; Virginia Hamilton, Bath; Clair Bauman, Waterville; LeRoy Gross, Auburn; Alice Whittier and Thomas Foster, Portland.

Let us all work together to improve the care of mothers and children in Maine.

YOUR COMMITTEE ON MATERNAL
AND CHILD WELFARE.

COUNTY SOCIETIES

Androscoggin

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Secretary, Charles W. Steele, M. D., Lewiston

Aroostook

President, Thomas G. Harvey, M. D., Mars Hill
Secretary, Clyde I. Swett, M. D., Island Falls

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County News and Notes

Members in Military Service*

Androscoggin

Beeaker, Vincent,	Lewiston
Beliveau, Bertrand A.,	Lewiston
Chevalier, Paul R.,	Lewiston
Clapperton, Gilbert,	Lewiston
Cox, William V.,	Lewiston
Frost, Robert A.,	Auburn
Greene, Merrill S. F.,	Lewiston
Mandelstam, A. W.,	Lewiston
Steele, Charles W.,	Lewiston
Tibbetts, Otis B.,	Auburn
Webber, Wedgwood P.,	Lewiston

Aroostook

Donahue, Gerald H.,	Presque Isle
Ebbett, George H.,	Houlton
Gagnon, Bernard H.,	Houlton
Labbe, Onil B.,	Van Buren

Cumberland

Blaisdell, Elton R.,	Portland
Casey, William L.,	Portland
Christensen, Harry E.,	Portland
Clancey, Daniel J.,	Portland
Daniels, Donald H.,	Portland
Davis, Paul V.,	Bridgton
Drake, Eugene H.,	Portland
Dunham, Carl E.,	Portland
Fagone, Francis A.,	Portland
Finks, Henry B.,	Portland
Fogg, C. Eugene,	Portland
Getchell, Ralph A.,	Portland
Greco, Edward A.,	Portland
Ham, Joseph G.,	Portland
Heifetz, Ralph,	Portland
Holt, C. Lawrence,	Portland
Hynes, Edward A.,	So. Portland
Johnson, Albert C.,	Portland
Johnson, Gordon N.,	Portland
Laughlin, K. Alexander,	Portland
Lombard, Reginald T.,	Portland
Lothrop, Eaton S.,	Portland
Love, Robert B.,	Gorham
Marston, Paul C.,	Kezar Falls
McCrum, Philip H.,	Portland
McLean, E. Allan,	Portland
McManamy, Eugene P.,	Portland
Moore, Roland B.,	Portland
Morrison, Alvin A.,	Portland
Ottum, Alvin E.,	Portland
Phillips, Robert T.,	Portland
Poore, George C.,	Portland
Schwartz, Carol,	Portland
Simecek, Victor H.,	Brunswick
Smith, Kenneth E.,	Portland
Spencer, Jack,	Portland
Tabachnick, Henry M.,	Portland
Thompson, Milton S.,	Portland
Thompson, Philip P.,	Portland
Williams, Ralph E.,	Freeport

Franklin

Brinkman, Harry,	Farmington
Colley, Maynard B.,	Farmington
LaTourette, Kenneth A.,	Farmington
Reed, James W.,	Farmington

Hancock

Larrabee, Charles F.,
Sumner, Charles M.,
Torrey, Marcus A.,

Bar Harbor
W. Sullivan
Ellsworth

Kennebec

Almond, Henry,
Bull, Frank B.,
Cook, Aaron,
Fisher, Samson,
Gingras, Napoleon J.,
Hardy, Theodore E.,
Hurd, Allan C.,
Irgens, Edwin R.,
Lambert, Greenleaf H.,
Lathbury, Vincent T.,
McLaughlin, Ivan E.,
McWethy, Wilson H.,
Metzgar, John,
Pomerleau, Rodolphe J. F.,
Provost, Pierre E.,
Shelton, M. Tieche,
Towne, Charles W.,
Towne, John G.,
Trask, Burton W.,

Gardiner
Gardiner
Waterville
Oakland
Augusta
Waterville
Gardiner
Waterville
Winthrop
Augusta
Gardiner
Augusta
Augusta
Waterville
Augusta
Augusta
Waterville
Waterville
Rumford

Knox

Apollonio, Howard L.,
Kazutow, John,
Toungue, Harry G.,
Wasgatt, Wesley N.,

Camden
Bangor
Camden
Rockland

Lincoln-Sagadahoc

Lenfest, Stanley E.,
Stott, Ardenne A.,

Waldoboro
Bath

Oxford

Dixon, Walter G.,
Villa, Joseph A.,
Wilson, Harry M.,

Norway
So. Paris
Bethel

Penobscot

Clough, Herbert T., Jr.,
Comeau, Wilfred J.,
Cutler, Lawrence M.,
Emery, Clarence, Jr.,
Feeley, J. Robert,
Gregory, I. Francis,
Hinman, Havilah E.,
Houlihan, John S.,
Pressey, Harold E.,
Shapero, Benjamin L.,
Witte, Max E., Jr.,

Bangor
Bangor
Bangor
Bangor
Bangor
Bangor
Orono
Bangor
Bangor
Bangor
Bangor

Piscataquis

Curtis, John B.,
Marsh, Burton S.,
Nickerson, Norman H.,
Thomas, William B. S.,

Milo
Greenville Jct.
Greenville
Dover-Foxcroft

Somerset

Laney, Richard P.,
Stinchfield, Allan,

Skowhegan
Skowhegan

Waldo

Jones, Richard P.,
Nesbitt, Lester R.,

Belfast
Bucksport

Washington

Cobb, Norman E.,
Knapp, Allan H.,
Metcalf, John,

Calais
Machias
Machias

York

Cobb, Stephen A.,
Downing, J. Robert,
Gould, George I.,
Hill, Paul S., Jr.,
Kendall, Clarence F.,
Murphy, John J.,
Myer, John C.,
Richards, Carl E.,
Tower, Elmer M.,

Sanford
Kennebunk
Biddeford
Saco
Biddeford
Wells Beach
No. Berwick
Alfred
Ogunquit

*As we do not have a record of the assignment and rank of all these members we are printing only their names and home addresses.

Franklin

The Franklin County Medical Society held its regular Summer meeting together with the Staff of the Franklin County Memorial Hospital at Voter Hill Farm, Farmington, Sunday, August 9, 1942.

Forty-six members and guests were present.

Dr. Carl H. Stevens, President of the Maine Medical Association, accompanied by Mrs. Stevens, was present, and discussed matters of importance to the Association.

Drs. Harry Brinkman, James Reed and Maynard Colley, of Farmington, were present in uniform. All three expect to leave soon for Service in the Army.

Dr. Frank Springer is awaiting orders for service in the Navy, and Dr. Kenneth La Tourette is now serving with the Air Corps.

Dr. C. C. Weymouth and Dr. H. S. Pratt showed some very interesting motion pictures.

GEORGE L. PRATT,
Secretary.

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2 Instrument Cabinets, 3 Filing Cabinets, 3 Instrument Tables, 2 Sterilizers, and a variety of general surgical instruments. Can be bought very reasonably.

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Five Suites of Offices: Two furnished: Three unfurnished. Receptionist in attendance.

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INDUSTRIAL HEALTH

Maine Safety and Industrial Health Conference

EASTLAND HOTEL

THURSDAY AND FRIDAY, SEPTEMBER 17TH AND 18TH, 1942

Department of Labor, State of Maine

Maine Medical Association

FRIDAY, SEPTEMBER 18, 1942

10.00 A. M.

Industrial Health Program conducted by the Special Committee on Industrial Health of the Maine Medical Association, Joseph B. Drummond, M. D., Portland, Chairman.

Remarks by Carl H. Stevens, M. D., Belfast, President of the Maine Medical Association.

First Aid, Its Rehabilitation in Head Injuries,
H. Eugene Macdonald, M. D., Portland

Communicable Diseases in Industry,
Roscoe L. Mitchell, M. D., Augusta,
Director, State of Maine Department
of Health and Welfare

First Aid in Injuries,
Allan Woodcock, M. D., Bangor

Industrial Nursing,
Mrs. Merle R. Lord, R. N., Sanford.
President, Maine Branch of Industrial Nurses

Occupational Diseases,
Edwin M. Fuller, M. D., Bath

Prevention and First Aid Treatment of Eye Injuries,
E. Eugene Holt, M. D., Portland

To the Members of the Maine Medical Association:

The Special Committee on Industrial Health of the Maine Medical Association invites all members of the Association interested in Industrial Health to attend this meeting.

JOSEPH B. DRUMMOND, M. D., Portland,
Chairman,
Industrial Health Committee.

To County Secretaries:

The Special Committee on Industrial Health of the Maine Medical Association earnestly requests the County Secretaries to send a list of all members interested in Industrial Health, also a list of Industrial Plants which maintain First Aid Stations under the supervision of an Industrial Physician or nurse to:

JOSEPH B. DRUMMOND, M. D.,
Chairman,
Industrial Health Committee,
62 State Street,
Portland, Maine.

Notice

Annual Meeting of the Maine Medico-Legal Society

The Maine Medico-Legal Society held its Annual Meeting at Poland Spring, Tuesday, June 23rd, with William Holt, M. D., of Portland, President, presiding. Legal angles were discussed by Former Attorney-General Franz U. Burkett, Attorney-General Frank I. Cowan, Chief Henry P. Weaver, of the Maine State Police, County Attorney Albert Knudsen, Portland, County Attorney Benjamin Butler, Farmington, and County Attorney Theodore Gonya, Rumford.

An interesting paper on Coronary Occlusion, its Legal Aspects, was presented by Joseph E. Porter, M. D., Associate Pathologist of the Maine General Hospital, and William Holt, M. D.

The guest speaker was Alan R. Moritz, M. D.,

Professor of Legal Medicine of Harvard University, who gave an excellent talk on "Forensic Pathology," illustrated with extremely interesting slides.

Motions were passed authorizing the Executive Committee to act for the Society, in case any legislative activity is undertaken.

Governor Sumner Sewall, Henry P. Weaver, and Alan R. Moritz, were elected to honorary membership.

Officers for the ensuing year were elected as follows:

President—Albert Knudsen, Portland.

Vice President—D. M. Stewart, M. D., South Paris.

Treasurer—W. S. Stinchfield, M. D., Skowhegan.

Secretary—George L. Pratt, M. D., Farmington.

GEORGE L. PRATT,
Secretary.

Proceedings

NINETIETH ANNUAL SESSION

Maine Medical Association

POLAND SPRING, MAINE

JUNE 21, 22, 23, 1942

FIRST MEETING OF THE HOUSE OF DELEGATES, JUNE 21, 1942

The first meeting of the House of Delegates of the Maine Medical Association convened at the Poland Spring House, Poland Spring, Maine, on Sunday, June 21, 1942, at 4.50 o'clock in the afternoon, with Dr. Carl H. Stevens of Belfast, President-elect of the Maine Medical Association, presiding.

CHAIRMAN STEVENS: The meeting will please come to order. Our Secretary, Dr. Frederick R. Carter of Augusta, will now call the roll.

(Secretary Carter then called the roll and the following delegates responded:)

Androscoggin:—Horace L. Gauvreau, M. D., Lewiston. Alternates: William H. Chaffers, M. D., Lewiston; Albert W. Plummer, M. D., Lisbon Falls.

Cumberland:—Thomas A. Foster, M. D., Portland; Frank A. Smith, M. D., Westbrook; DeForest Weeks, M. D., Portland; Elton R. Blaisdell, M. D., Portland; Philip H. McCrum, M. D., Portland; Clyde E. Richardson, M. D., Brunswick; Richard S. Hawkes, M. D., Portland.

Franklin:—George L. Pratt, M. D., Farmington. Hancock:—Raymond E. Weymouth, M. D., Bar Harbor.

Kennebec:—Ivan E. McLaughlin, M. D., Gardiner; Frank B. Bull, M. D., Gardiner.

Knox:—C. Harold Jameson, M. D., Rockland. Alternate: James Carswell, M. D., Camden.

Lincoln-Sagadahoc:—Virginia C. Hamilton, M. D., Bath.

Oxford:—Roswell E. Hubbard, M. D., Waterford; Dexter E. Elsemore, M. D., Dixfield.

Penobscot:—Forrest B. Ames, M. D., Bangor; Ernest T. Young, M. D., Millinocket.

Piscataquis:—Harvey C. Bundy, M. D., Milo.

Waldo:—Raymond L. Torrey, M. D., Searsport.

York:—Edward M. Cook, M. D., York Harbor; Waldron L. Morse, M. D., Springvale. Alternate: Carl E. Richards, M. D., Alfred.

CHAIRMAN STEVENS: The next order of business is the appointment of a Reference Committee by the Chair. I appoint Dr. Thomas A. Foster of Portland as Chairman, Dr. George L. Pratt of Farmington, and Dr. Forrest B. Ames of Bangor*, members of the Committee.

The next order of business is the appointment of a Nominating Committee.

For the First District I appoint Frank A. Smith of Westbrook; Second District, Merrill S. F. Greene of Lewiston; Third District, C. Harold Jameson of Rockland, who will act as Chairman; Fourth District, Raymond L. Torrey; Fifth District, Raymond E. Weymouth of Bar Harbor; Sixth District, Harvey C. Bundy of Milo. This Committee is to draw up a slate of Standing Committees for 1942-1943 and report their deliberations to the second meeting of the House of Delegates tomorrow, June 22nd, at 5.30 P. M.

We are now ready for the report of the Council for 1941-1942, by Dr. Stephen A. Cobb of Sanford, Chairman.

(Dr. Cobb then read his prepared report of Council Meetings held at York Harbor, June 24, 1941; Greenville, July 24, 1941; Portland, October 16, 1941; Augusta, April 16, 1942; Poland Spring, June 21, 1942, and of Council Business transacted by mail. This report is on file in the Association Office at Portland.)

CHAIRMAN STEVENS: The Chair awaits your action concerning the report of the Council, as submitted by Dr. Cobb.

DR. THOMAS A. FOSTER of Portland: Mr. Chairman, I move the acceptance of this report, and in moving its acceptance, I would like to submit for the record the fact that the Councilors attended the meetings one hundred per cent, and that the Scientific Committee attended the meetings one hundred per cent. I think that is an excellent example for the Association to follow. I think the fact of having that on the record may be of some value to future Councilors and future executive committees.

DR. GEORGE L. PRATT of Farmington: I will second that motion.

CHAIRMAN STEVENS: It has been moved and duly seconded, that the report of the Council be accepted. Those in favor of this motion will please signify by a showing of hands. Those opposed by the same sign.

There was a chorus of "ayes" and the motion was carried.

CHAIRMAN STEVENS: Two motions are now presented.

1. I move that the Council be instructed to appoint a Committee from the Maine Medical Association to follow out the suggestions made in the letter from Frank Mott to Frederick R. Carter, Secretary, regarding the expenditure of \$20,000 left under the will of Amy W. Pinkham for the use of tuberculous and under-nourished children of Maine.

(The letter from Mr. Mott to Dr. Carter was read by the Chairman of the Council, Dr. Cobb, and is on file in the Association Office at Portland.)

The Chair awaits your action. This motion is presented by Dr. Norman H. Nickerson of Greenville.

DR. PRATT: I will second Dr. Nickerson's motion, and I wish to move that this matter be sent to the Reference Committee for their consideration and report back to the next meeting of the House of Delegates.

This motion was duly seconded and was carried.

CHAIRMAN STEVENS: A second motion presented by Dr. Nickerson is as follows:

I move that the Association express its opinion to the Governor and Legislative bodies that the supervision or the distribution of milk in Maine should be under the Department of Health rather than under the Department of Agriculture.

The Chair awaits your action on Dr. Nickerson's motion.

DR. PRATT: I will second that motion, and move further that this matter be sent to the Ref-

* Dr. Ernest T. Young, of Millinocket, was appointed a member of the Reference Committee in place of Dr. Ames, who had to return to Bangor immediately following this meeting.

erence Committee for their consideration, reporting back to our next meeting.

Upon a hand vote, this motion was carried.

CHAIRMAN STEVENS: The next order of business is the presentation of the 1942-1943 budget, as recommended by the Council.

PRESIDENT P. L. B. EBBETT of Houlton: There is one other suggestion there which I think I presented to the Council myself. It is something that I am rather interested in, personally, because it would be of great benefit to our Association. It was that the Council approve that we elect Herbert E. Locke to honorary membership in our association.

Now, this may be assuming something of a precedent, but it has been done in other societies and can be done in ours. Until you are intimately associated with the affairs of the Association, you just cannot realize what a lot of work Mr. Locke puts in for us. Last winter, he spent days, and his time even went into weeks, trying to get some legislation through for us, for which he wasn't receiving much of anything. He was doing it, you might say, gratis; his remuneration was so slight it wouldn't have covered hardly his expenses, let alone other efforts put into it.

I can say that he is a very valuable man to us, not only in legislative work, but also in our medico-legal work, and I do feel that it would be merely showing our appreciation if we should confer this honor upon him, and I know that he would appreciate it, and also that perhaps he might be still more active in our interests, although I don't know how that would be possible because all winter long when certain matters are coming up, he will come to us with them and say: "Is there anything I can do for you?" Now, he wasn't getting anything for that. But he was taking an interest in our Association, and our welfare, and I really feel that it would be a nice gesture on our part, if we can see our way clear to electing this man to honorary membership.

I should like to make that motion, that we elect Herbert E. Locke to honorary membership in the Maine Medical Association.

DR. FRANK H. JACKSON of Houlton: I am not a member of the House of Delegates but I would like to say this. For quite a number of years, I have been intimately associated with Mr. Locke on your Medical Defense Committee. I don't know how a man could be any more loyal and efficient in that job than he has been.

Of course, it is not my privilege and I wouldn't assume it, to speak of the work of that Committee. That is only reported to the Council, for the records of this Association, but I would say this. We have had an enormous amount of work to do in the last few years. This year, we did not meet, as we usually do, with Dr. Robinson in Portland, but Mr. Locke had a great deal of correspondence individually with the members, and certain important cases came up and he came personally to see members who were interested in and who could handle those cases, as he felt, to the best advantage of the Association as well as to the man whose safety was jeopardized.

I want to say this, if I may, that I think it would be a most gracious thing if this House of Delegates would vote unanimously to afford this honor to Dr. Locke.

DR. EDWARD M. COOK of York Harbor: I would like to second the motion of Dr. Ebbett, that Herbert Locke be made an honorary member of this Association.

DR. FRANK A. SMITH of Westbrook: Do the by-laws have to be altered for this, Mr. Chairman?

CHAIRMAN STEVENS: I don't think so. As far as I know, they would not. The by-laws state, con-

cerning the members who have been in practice fifty years, that they are eligible for honorary membership.

Is there any further discussion? If not, those in favor of the motion will please signify by the usual sign?

The motion was unanimously carried, by a hand vote.

CHAIRMAN STEVENS: The next order of business is the presentation of the 1942-1943 budget, as recommended by the Council, and this will be given to you by Dr. Cobb, Chairman.

DR. COBB: The budget for 1942-1943 includes the following items:

President's expenses: (Expended this past year, \$300). Recommended, \$300.

Salaries: For Secretary-Treasurer (\$1200 expended). Recommended, \$1200.

Salaries: Assistant Secretary (\$1500 expended). Recommended, \$1500.

Office expenses: Secretary-Treasurer and Portland office (expended during the past year, \$1112.72). Recommended, \$1150.

Committees: Medical Advisory Committee (the budget last year was \$650, and there was expended \$515.67). Recommended, \$650.

Committee on Graduate Education (the budget was \$300 last year, expended \$59.62). Recommended, \$100.

For other Committees (the budget was \$100, expended, nothing). Recommended, \$100.

State Delegates and Council (the budget was \$200. There was expended, \$99.86). Recommended, \$200.

Delegate to the American Medical Association Annual Session (the budget was \$150. There was expended \$91.75). Recommended, \$250. (The reason for that, of course, is that the next annual session is at San Francisco.)

Annual Session (the budget was \$100. Nothing was expended). Recommended, \$100.00.

For the Fall Clinical Session (the budget was \$250, and the amount expended was \$37.10). The amount recommended was nothing, because it was recommended to the Council that due to war conditions, in our opinion it would not be advisable to hold a clinical session this year.

Appropriation to the JOURNAL expenses:

Salary of the Editor (expended, \$1,000). \$1,000 is recommended.

JOURNAL expenses not covered by advertising (in the budget last year, this amount was \$750. Expended, \$370.69). Recommended, \$750.

The total, last year, of the budget, was \$7,650.00, expended, \$6,286.81. Recommended this year, \$7,300.

CHAIRMAN STEVENS: You have heard the report of the Budget for 1942-1943, submitted by Dr. Cobb. The Chair awaits your action.

DR. EBBETT: I move that the Budget be accepted as read, as a whole.

This motion was duly seconded and was carried.

CHAIRMAN STEVENS: The next order of business is the report of Delegates. The first report we are going to hear is that of the Delegate to the American Medical Association Annual Meeting, just held, by Dr. Thomas A. Foster.

DR. FOSTER: Mr. President and members of the House of Delegates;

At the 89th Meeting held in York Harbor, June, 1941, the House of Delegates elected Doctor William Ellingwood of Rockland, a Delegate from our association to the House of Delegates of the American Medical Association. Dr. Ellingwood had served faithfully for many years as our delegate to the National House and was appropriately re-elected for a term of two years. We all realized last June that Dr. Ellingwood was fighting with a

gallant spirit a malady which was unconquerable. And in the Autumn of 1941, he was called to his final rest. I would like at this time to pay a tribute to his devotion and loyalty to this association and to the House of Delegates, of which he was a beloved member for many years.

As your alternate delegate, I arrived in Atlantic City, June 7th, and reported for the first Session of the House Monday morning at 8.30 A.M. in the Hotel Traymore.

A year or more ago, the Council on Scientific Assembly, together with the Officers of the A.M.A., made plans to have the 1942 meeting feature a Pan-American Session. The House of Delegates approved the recommendation at their meeting at Cleveland in 1941, and it was the hope of the Council to have present at the session in Atlantic City a large number of the physicians of South and Central America, Mexico, and Canada, but, "greatly to the regret of the Council and to the officers and members of the A.M.A., conditions created by the war have made it impossible to carry out this original plan." However, several distinguished physicians from Southern countries, from Mexico and Canada accepted invitations to participate in the scientific work of the association and appeared before the General Scientific meeting and in the meetings of the Sections. The war had its effect on this meeting in other ways. But it was a fine and well attended gathering.

First, a Report on the Proceedings of the House:

The Roll Call revealed a majority, delegates from Alaska, Hawaii, Isthmian Canal Zone, and Philippines the only ones not present, and Dr. H. H. Shoulders, Speaker of the House, started the proceedings. One of the first acts was to select from three candidates presented by the Board of Trustees, a recipient for the Distinguished Service Medal awarded each year. The candidates were Elliott P. Joslin, Ludvig Hektoen and George Crile. On the first ballot, no choice was manifested. Much to my surprise, Joslin was the low man and was dropped. On the second ballot, Dr. Hektoen was chosen to receive the award. Dr. Hektoen is professor emeritus of Pathology at Rush and was professor and head of the Department of Pathology from 1901-1932 at the University of Chicago.

Following this election came the addresses of the Speaker of the House, Dr. H. H. Shoulders, President Frank H. Lahey, and President-elect Fred W. Rankin. These are printed in the July 11th issue of *The Journal of the American Medical Association*. They are short, right to the point, and give an up-to-the-minute declaration of the position of your association. Then came reports of the Secretary and Treasurer, Chairman of the Board of Trustees, and the presentation of Resolutions. The Secretary reported a membership of 120,701 on April 1, 1942, compared to 118,441 on corresponding date in 1941. The Board of Trustees reported a Gross Income from all sources for the year of \$1,939,127.39, an increase over preceding year of \$62,773.59. Net income for 1941, after appropriating \$215,000.00 for a new storage building, amounted to \$223,374.64, of which \$77,424.09 represents interest on investments.

(Maine on the official Record has Fellows 361.—165 Subscribers, a total of 526 who receive the *Journal of the A.M.A.*) The Reports of the work of the various Councils need not take time here, except to say that they are active and progressive Councils. The Treasurer reported Invested and Universal Funds as of December 31, 1941, \$2,708,661.11.

The Auditors' Report stated that the attorneys

reported that the following law suits against the association were on file:

Jean Paul Fenel, 1 Million (libel),

Wm. E. Balsinger, \$100,000.00 (libel),

Muriel Langine, \$1,000.00 (claim),

United States of America (conspiracy in restraint of trade),

and adds, "in their opinion, all of these suits will be defeated."

After an all-day session, the House adjourned to allow for Reference Committee Meetings, which were held at the Hotel Traymore in various and sundry rooms.

The Medical Society of New Jersey and The Medical Society of Atlantic County gave a dinner in honor of the Delegates following the session of Monday. It was a jolly party and excellent dinner. Mr. Paul McNutt spoke after dinner and spoke in no uncertain language. He stated that the doctors were the only group who were allowed to formulate their own plan for furnishing officers for the army, and that he hoped that the plan was going to work. But if it didn't deliver 5000 M.D.'s by the first of July, some other plan would be set in operation, and he didn't mean maybe. The next morning in the House of Delegates he repeated his remarks with somewhat softer music, but he sounded a serious note. Dr. Lahey, later in the day, reported that he thought the 5000 would be secured, but that the doctors must be prepared to furnish 40,000 more officers, if the present Army and Navy plans are developed. And he thought that the "Procurement and Assignment" could do the job.

The larger amount of the time of the Delegates from this period was devoted to consideration of the reports of the Resolutions coming from the Reference Committees. To discuss all these reports would be all too time-consuming, but to report to you on the controversial ones is the duty of your delegate.

The first one to arouse discussion was a proposal to increase the number of Trustees from nine to eleven. This was sponsored by California, supported by Texas and other western states. The Committee report was opposed to the increase, and, on a vote of the House, the report was adopted. So the Trustees remain at nine.

The next resolution, which divided the House, was the proposal of the Wisconsin Delegates to approve and endorse the National Physicians Committee for Extension of Medical Service. This measure had both strong support and strong opposition. But everyone who spoke paid a compliment to the work of the Committee and urged its continuance. The opposition felt that it was dangerous strategy for the A.M.A. to endorse any special Committee doing propaganda work, which might entail lobbying and politics. The Supporters argued that the Committee was doing valuable work, which must be continued, and that the A.M.A. should endorse it. The Committee brought in a majority and minority report; the majority report lauded the work of the Committee, but recommended a compromise support by not naming the Committee and endorsing all agencies which helped to enlighten the public favorably toward medicine. The minority report came out flat-footed for the endorsement of the N.P.C. The minority report prevailed. And the A.M.A., through its House of Delegates, has confirmed and endorsed the N.P.C., which wants and needs the support of every individual member.

Another report which called for discussion was the Proposal of Dr. Emily D. Barringer of the New York Delegation, and lone woman delegate. She asked for the support of the association in

securing commissions for women doctors in the Armed Forces of the U. S. A. Dr. Barringer spoke well for the proposal and gained support for it. But the Committee report was against its adoption, and on a rising vote, the report was adopted. So the A. M. A. went on record at this time as opposed to asking the Surgeon General of Army, Navy, and Public Health Department to commission women physicians.

The last Resolution, which caused much debate, was the Proposal of the Massachusetts Delegation for the Formation of prepayment Medical Plans for Low Income Groups "at the behest of the A. M. A." The association officers and Committee Chairmen believed that such plans should be helped by all the means at the disposal of the A. M. A., but should originate in County and State Societies, and the resolution so worded was approved. Other resolutions, such as one to dissuade Hospitals from collecting for Medical Services without a statement from the attending physician, and one deploring and disapproving the issuance of Health Certificates or "clean bill of health" to prostitutes, and one against rebates or commissions from Drug Houses were passed. Then, in the final session, came the election of officers and selection of a meeting place for 1945.

First, the election of Dr. James Edgar Paullin as President-Elect was unanimous; next, Dr. William Carrington, Atlantic City, Vice-President; and Dr. West and Dr. Kretchner, Secretary and Treasurer. Dr. Paullin is from Atlanta, Georgia. He was Chairman of the Council on Scientific Assembly.

He was graduated from Mercer University in 1900 and Johns Hopkins Medical School in 1905. At one time was resident Pathologist at Rhode Island Hospital in Providence. He was a Major in the Medical Corps of the Army, 1918-1919, and is retiring President of American College of Physicians and is a Member of the Procurement and Assignment Committee.

Next, the election of two Trustees, the first to succeed Dr. Arthur W. Booth of Elmira, New York, who had served two terms of five years. A contest developed between Dr. Gordon Heyd of New York and Dr. Edward M. Pallette of Los Angeles. Dr. Pallette was the successful candidate, and the election was made unanimous upon motion of Dr. McGouldrick of New York.

The second was a re-election — Dr. R. L. Senenich, of South Bend, Indiana.

And finally, selection of a Meeting Place for 1945. Atlantic City and New York both invited the A. M. A. Meeting. New York was selected by a fairly large vote.

Now for a short report on the General Assembly. Total Registration was 8,103 for four days. From Maine, twenty-two members registered, not a large delegation.

The technical exhibitions, which numbered over 250, were up to standard. In one, arranged by Mead-Johnson Company, were exhibited works of art contributed by Physicians. It was a pleasure to find here a painting by one of our Members, Dr. John Allen, and particularly pleasing to see that the painting had won an Award.

The Scientific Assembly featured this year sessions for the General Practitioner and for Medical Examiners. These Sessions under the Section on Miscellaneous Topics were among the most popular, between four and five hundred registering.

The Scientific Exhibitions beggar description. All Sections had numerous and varied demonstrations. Your delegate enjoyed particularly the demonstration of the Kenney treatment of Ant. poliomyelitis on living models. There were demonstrations to interest each and every visitor. Dr. Hirsh Sulkowitch, of Portland, showed an exhibit with Dr. Fuller Albright and others.

It seems to me inappropriate in rendering this report not to express my thanks to you for electing me to this honorable position. I do appreciate it, and I urge all of you to consider seriously the opportunities which exist for continuing Medical education at these unequalled annual meetings of the A. M. A. This year, in addition to the best talent in the United States, came added talent from South America, Mexico, Cuba, Puerto Rico, and Canada. Gentlemen, it is a great show; plan to go and see for yourselves.

CHAIRMAN STEVENS: Thank you, Dr. Foster, for the fine and comprehensive report you have given to us.

The Chair awaits your pleasure as to the acceptance of this report.

DR. C. HAROLD JAMESON of Rockland: I move the acceptance of the report of Dr. Foster as Delegate to the American Medical Association meeting held at Atlantic City.

This motion was duly seconded by several of the members present, and was carried.

Continued in the October Issue

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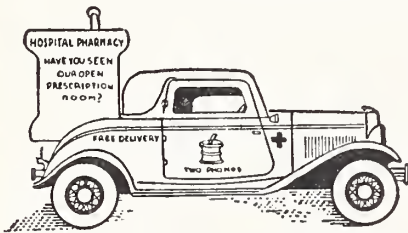
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The Journal of the Maine Medical Association

Volume Thirty-three

Portland, Maine, October, 1942

No. 10

*Medical Queries Answered**

Symposium Conducted by SAMUEL H. PROGER, M. D., WILLIAM B. DAMESHEK, M. D.,
HAROLD E. MACMAHON, M. D.

Edited by J. GOTTLIEB, M. D.

QUESTION: *What is the present status of erythema nodosum, etiology and treatment?*

ANSWER:

DR. MACMAHON: This is a non-specific granulomatous inflammatory reaction that tends to occur in the subcutaneous tissues in a number of separate and distinct clinical entities. For example: Rheumatic fever, tuberculosis, coccidiomycosis and streptococcus infections. It is possible that a state of hypersensitivity is the common denominator of those diseases in which it is found.

QUESTION: *Discuss the diet in the pre-operative management of a patient with cholecystitis and cholelithiasis and moderate icterus.*

ANSWERS:

DR. DAMESHEK: The patient has evidently been through a severe attack, probably associated with vomiting and fever and

the chances are he has become depleted of fluids, chlorides, and vitamins. Fluids may be given either subcutaneously or intravenously in the form of normal saline and glucose. The liver may well have been damaged during the process so that it may be advisable to give large amounts of glucose intravenously and orally. Vitamin "C" deficiency often develops so that either orange juice or ascorbic acid by mouth is helpful in facilitating wound healing. Due to obstruction to the flow of bile, Vitamin "K" deficiency and hypoprothrombinemia develop. Vitamin "K" either orally or intramuscularly should therefore be given. The diet should be very light, low in fat, high in carbohydrates, probably low in protein.

DR. FULLER: How about eggs in this diet?

DR. DAMESHEK: I would keep away from eggs. They will contract the gall bladder. This prescription applies equally to all fatty foods, including eggs.

* From the Central Maine General Hospital Teaching Clinic, Bingham Hospital Extension Service, December 19, 1941.

QUESTION: *Discuss present etiology and treatment of peptic ulcer.*

ANSWERS:

DR. PROGER: As to etiology, there are only a few things that need be said. In the first place, there is no knowledge as to definite etiology. They occur only in those parts of the gastrointestinal tract where the mucosa comes in contact with acid secretions. This indicates that the acid must be an important factor in the etiology. A corollary to this fact is that anything which neutralizes the acid tends to relieve the pain from the ulcer and bring the ulcer under control. As to the treatment of peptic ulcer a few points may be mentioned. In the first place the use of colloidal aluminum preparations, such as Amphojel or Creamalin has done much to eliminate the ill-effects sometimes resulting from the use of alkalies while at the same time the good effects of the alkalies, namely the neutralizing effects, have been retained. Except for its occasional constipating effect, the long-continued use of colloidal aluminum preparations is probably harmless despite some experimental evidence which indicates that there may be a mal-absorption of inorganic phosphates as a result of aluminum hydroxide therapy. With colloidal aluminum preparations it seems to me that the more extreme dietary measures such as hourly milk and cream feedings, are not entirely necessary; that is to say, even acute ulcers often do quite well on a so-called second or third stage Sippy diet if sufficient colloidal aluminum is used between feedings.

Treatment of peptic ulcer raises the question of surgery. The indications for surgery remain as previously. The surgical methods, however, fortunately have been changed so that the relatively unsatisfactory gastroenterostomy is rarely done now but has been replaced by the much more satisfactory, so far as end-results are concerned, subtotal gastrectomy. In a consideration of which patient should be operated it is well to remember that ulcers of the stomach which are large, in the pre-pyloric region, on the greater curvature, or which recur despite good medical treatment, should be suspected of being malignant and should be operated. The fact that a lesion seems to clear up and that the stools

become negative does not eliminate the possibility of malignancy. Small gastric ulcers and those on the posterior wall also may be malignant and should be carefully observed with this in mind. The questionably malignant cases should have resections done.

As to the medical treatment of bleeding peptic ulcer there is still considerable controversy although most gastroenterologists feel that the Meulengracht diet, which is a very liberal diet, including meat, may be given with safety at the outset. Whether such a diet is actually preferable to extreme dietary limitation with adequate management of fluid balance during the early stages of bleeding from a peptic ulcer, remains to be determined.

DR. DAMESHEK: I should like to raise the question of the importance of emotional factors.

DR. PROGER: That is also important, as it is in almost any organic disease and I should have brought that up, too. The nervous factor is most important. In this connection, it is of interest that the incidence of peptic ulcers in the fighting forces in England during the present war is highest in the army, less high in the navy and least high in the air force. This has been attributed to the fact that there is more purposeful activity in the air force, relatively less in the navy and least in the army. Tension without purposeful activity seems therefore to be a factor in precipitating ulcers.

QUESTION: *Is intercapillary glomerular sclerosis accepted?*

ANSWERS:

DR. MACMAHON: Clinically there appears to be an entity characterized by hypertension, anasarca, hypoproteinaemia, cholestaemia and albuminuria; combined with diabetes. Grossly there is nothing characteristic in the kidney that would enable one to make this diagnosis. On histological examination, a lesion has been described in the glomeruli,—a severe atherosclerosis involving the capillaries and their associated basement membranes. This histological lesion has been described as intercapillary glomerulosclerosis. Now the interesting thing is that this histological le-

sion is not common and when it occurs it is seldom diffuse throughout either kidney, and it may or may not be found together with the clinical entity. I have seen it very, very rarely as a histological entity, and in none of the cases that have come to my attention, has the clinical entity been apparent.

DR. PROGER: We have discovered three or four patients who had diabetes and nephritis and edema and hypertension, and Dr. Lawrence of Rumford will recollect that we saw one patient in Rumford—a twenty-year-old with diabetes and nephritis who might have been suffering from this disease, but it must remain for the pathologist to establish the final diagnosis.

QUESTION: *What is the danger, if any, in determining a glucose tolerance curve in a patient with a blood sugar of 225 mgs. %?*

ANSWER:

DR. DAMESHEK: One doesn't like to overload a patient with a blood sugar so high. It might easily make the diabetic problem much worse. In the case of a mild or questionable diabetic, it is perfectly all right to do a glucose tolerance test.

QUESTION: *What are the limitations of fluid and salt intake in the treatment of cardiac failure?*

ANSWER:

DR. PROGER: I do not believe the fluid restriction is so important in the treatment of heart failure if the salt intake is restricted. In order for fluid to be retained sodium chloride must be available and retained. There can be no salt retention without sufficient salt intake. Without salt retention increased water intake is easily and quickly eliminated. This is not only theoretically true but we have been able to demonstrate in patients in heart failure that when the salt intake is kept at a low level the actual forcing of fluids has no ill effects on the circulatory dynamics. A slight increase in the salt intake, on the other hand, resulting in a measurable degree of sodium retention was followed by distinctly harmful effects on the circulation. In this connection it is important to remember that the actual quantity of

salt intake is not so important as the amount of that salt that is retained. In a person in failure an intake of 10-12 gms. of sodium chloride in a day (the usual dietary intake is 6-8 gms. of sodium chloride) may result in the retention of 4-5 gms. of sodium chloride which in turn results in a retention of about 500 cc. of fluid since fluid is retained in a salt concentration corresponding to that of normal saline. Since in a given patient it is difficult without elaborate measurements to know just how much salt can be given before some is being retained it is simply wise to give as little salt as possible because under these circumstances there is the least likelihood that salt, and hence fluid, will be retained. There are some patients even with slight cardiac weakness who can take 15-20 gms. of sodium chloride and excrete it all easily. On the other hand this is not true in all patients with cardiac weakness and hence it is wisest to restrict the salt and take no chances. There may be some criticism of permitting increased water intake because of the fact that this increased water intake must be eliminated and this elimination from the circulation requires some work. However, when one recalls that the heart pumps at least 5,000 liters a day, even at rest, the adding say of one liter of water to this total would represent an insignificant amount of actual additional cardiac work.

QUESTION: *Discuss the etiology and prevention of renal calculi.*

ANSWER:

DR. MACMAHON: Renal calculi are made up of a number of different substances, some of which are of a protein and others of a mineral origin. An excess of calcium, for example, in the circulating blood is put out through the kidneys. Here it is frequently concentrated in the tubules to a degree of actual precipitation. Such precipitates may form microliths and these may be the basis for large stone formation. Another factor is inflammation within the kidney pelvis, another is in the form of a disturbance of pelvic epithelium as may occur in Vitamin "A" deficiency. Any anomaly in the kidney that may predispose to retention within the pelvis will also favor stone formation or any ac-

quired obstruction to the outflow of urine. Because many factors may combine to lead to stone formation it is equally obvious that a number of factors must be considered for their prevention.

QUESTION: *What is the present status of any form of insulin given orally?*

ANSWER:

DR. DAMESHEK: There is no status.

QUESTION: *Can you have non-hemolytic jaundice without bile in the urine?*

ANSWERS:

DR. DAMESHEK: Yes. If you have acholuric jaundice—jaundice in which the urine doesn't show bile—this indicates that the blood contains indirect bilirubin which is unable to get by the kidney threshold; the hepatic cells modify it to direct bilirubin, by removing the protein constituent. In the intestines urobilinogen is formed which is excreted in the urine and feces. In a case of mild jaundice, in which blood destruction is not increased, acholuric jaundice may be present as the result of a minor dysfunction of hepatic cells; the indirect bilirubin may pass through the hepatic cells with unusual slowness and may thus accumulate in the blood as indirect bilirubin. A non-hemolytic jaundice without bile in the urine may occur in mild hepatic disease including early cirrhosis of the liver, and at the very beginning and towards the very end of catarrhal jaundice.

DR. LUBELL: What laboratory tests would you recommend for this determination?

DR. DAMESHEK: Indirect bilirubin is determined by the Van Den Bergh test with Ehrlich's diazo reagent, which gives a blue-color only when alcohol is added, but not directly—which is why it is called "indirect"—if bilirubin is present which has already passed through the liver and "regurgitated" back into the circulation, it will give a direct reaction with Ehrlich's reagent.

QUESTION: *What is the status of meat and salt in the management of hypertension?*

ANSWER:

DR. PROGER: There is no good evidence with which I am familiar that either meat or salt is harmful in moderation in the ordinary patient with hypertension. The idea that meat might be harmful is probably related to the feeling that meat is harmful in nephritis and a good many patients with hypertension, have, to be sure, an associated nephritis. On the other hand, more recent experiments have indicated that even in the various stages of glomerulo-nephritis, meat as such is not harmful—rather it is the potassium in the meat. Hence, meat of low potassium content is thought to be entirely harmless even in nephritis, whereas meat of high potassium content such as liver or sweetbreads is best eliminated in nephritics. However, so far as hypertension alone is concerned, meat seems to have no harmful effects.

The idea that salt restriction is helpful in the management of hypertension probably dates from Allen's early observations. However, he employed extremely low salt intakes under which circumstances it is quite likely that he was producing some degree of diuresis as well and it is to be expected that under these circumstances in which there is an associated dehydration that the blood pressure would drop. However, this is not physiological and could not be continued for an indefinite period of time before a salt balance would be established on a lower level of intake and output at which time the lowering effect on the blood pressure would be lost. There seems no logical reason therefore to restrict salt in the management of hypertension and there is also no evidence that even a moderate increase in salt intake has any effect on essential hypertension.

QUESTION: *What is your opinion of the treatment of Infantile Paralysis as prescribed by the "Sister Kenney" Method?*

ANSWER:

DR. MACMAHON: Her treatment sounds very rational and what is most important, it appears to bring results. In infantile paralysis single or groups of anterior horn cells are injured or destroyed. Many cells are spared. Each anterior horn may supply as many as 200-300 muscle fibres. If one of these nerve

cells is killed, those muscle fibres dependent on it will gradually disappear. The principle of her treatment is not to anticipate any regeneration of killed nerve cells, but rather to maintain the life and vitality of muscle fibres that still have an intact and viable motor-neurone. Such nerve fibres may be scattered about among those that are paralyzed, and if the whole area is put to rest, even the healthy fibres will suffer atrophy of inactivity and unnecessary deformities may result.

QUESTION: *What is the relative percentage of macrocytic and hypochromic anemia in cancers of the alimentary tract?*

ANSWER:

DR. DAMESHEK: The great bulk of cancers of the gastro-intestinal tract are associated with hypochromic anemia, since almost always, they are associated with bleeding which results in a reduction of hemoglobin. Furthermore, the patient with a gastro-intestinal carcinoma has a poor appetite and may vomit and have diarrhea sufficiently severe to cause a drop in the absorption of iron. In pernicious anemia, the atrophic gastric mucosa is readily subject to the development of polyps and a polyp often degenerates into carcinoma. If a carcinoma of the stomach is present in association with macrocytic anemia, it may be due to the underlying pernicious anemia.

QUESTION: *Is whole blood or plasma preferable in the treatment of shock?*

ANSWER:

DR. DAMESHEK: In the treatment of shock, plasma is preferable. There is already a concentration of hemoglobin due to reduction in the plasma volume. The idea is to increase the plasma volume, and not the red blood cells, and this is done by giving plasma.

QUESTION: *What is the mechanism in Cheyne-Stokes respiration?*

ANSWER:

DR. PROGER: There is no definite answer to this question. There are various fascinating theories as to the mechanism, none of which is anything more than a theory. The

general explanation is that as a result of anoxemia in heart failure there is a relatively excessive stimulation of the respiratory center from the carbon dioxide in the blood which is, relative to the oxygen content, higher than usual. As a result of this excessive carbon dioxide stimulation of the respiratory center there is over-ventilation. This over-ventilation results in a washing out of a large quantity of CO_2 from the system in the expired air following which there is a period of apnea because there is an insufficient amount of CO_2 to stimulate the respiratory center. During hyperpnea the blood is saturated with oxygen. During the period of apnea, oxygen deficiency and relatively increased CO_2 again appear and hyperpnea once more sets in. Cheyne-Stokes respiration is not always of serious omen.

QUESTION: *In maternal transfusions, is it hazardous to employ the husband's blood?*

ANSWER:

DR. DAMESHEK: Landsteiner and Weiner found that by injecting the blood of the Rhesus monkey in rabbits, an anti-rhesus agglutinin is produced, which, when mixed with the monkey blood, causes agglutination. This anti-monkey (anti-Rh), agglutinin when tested with *human* red cells caused agglutination in 85% of all cells tested. Thus, 85% of humans are Rh+ and 15% Rh—. In women dying of transfusion reactions following transfusion of their husband's blood, it was found on several occasions that although there was compatibility with the regular blood groups, there was an actual incompatibility due to the fact that the woman had developed an agglutinin which reacted with the husband's red cells. Further studies showed that this agglutinin was the anti-Rh factor, and that the husband's red cells were Rh+. This develops in the following manner. A woman who is Rh— mates with a man who is Rh+. The child will almost always be Rh+. During pregnancy, some of the foetus's red cells may get into the maternal circulation and immunize the mother against the Rh factor. She will therefore develop an anti-Rh factor, so that when the husband (Rh+) gives her a transfusion, her serum

reacts with the husband's red cells causing an agglutination-hemolysis reaction. It has been found that post-transfusion reactions occurred especially in women who in the past have had several miscarriages, stillbirths, etc. Studies of cases of erythroblastosis foetalis show that in most of the cases, the combination of Father Rh+, Mother Rh—, and the Child Rh+ was present. The development of an anti-Rh agglutinin in the mother may thus result either in a transfusion reaction or in the child's developing erythroblastosis foetalis.

DR. HIGGINS: Could you use another woman's blood without this test?

DR. DAMESHEK: What you want is a Rh— donor. This is found out by using Rh testing serum. Cross-matching by ordinary methods is not enough; the blood must be incubated for at least 1/2 hour. True, your patient may be in dire need of transfusion immediately, but it is better to wait a little than to have a death from a post-transfusion reaction.

DR. MACMAHON: Could you use plasma instead of blood?

DR. DAMESHEK: No. Here the call is for red blood cells, and for exactly the right type of red cells.

QUESTION: *What is the differential diagnosis of congenital pulmonary stenosis and patent ductus arteriosus?*

ANSWER:

DR. PROGER: Given a patient with a fairly loud pulmonic systolic murmur, the question arises, is it congenital heart disease in the first place and if so is it patent ductus arteriosus or pulmonary stenosis. These questions are often difficult to answer. Balfour, the famous Scottish clinician has referred, not without good reason, to the pulmonic area as the "area of auscultatory romance." If the pulmonic systolic murmur is quite loud, the likelihood is that there is some congenital abnormality. If there is a relatively high degree of cyanosis, if there is no diastolic murmur over the same area, and if there is no characteristic enlargement on X-ray in the region of the pulmonary cone, the chances are in favor of pulmonary stenosis. Most pa-

tients with patent ductus arteriosus have a continuous murmur with systolic accentuation. It is almost always harsh, rarely blowing. It is often described as being machinery-like in character. While patent ductus arteriosus occasionally occurs with just a systolic murmur, this is extremely unusual. Also in patent ductus arteriosus, there is rarely any significant degree of cyanosis until very late, usually in the presence of heart failure.

QUESTION: *Does bile pigment ever enter into the spinal fluid?*

ANSWERS:

DR. MACMAHON: Yes, in small quantities, but I have never seen a healthy brain discolored by it. If there is a brain tumor, an area of inflammation or a zone of infarction in an individual with jaundice, these lesions may be brilliantly discolored.

DR. GOTTLIEB: I think the question refers to spinal fluid.

DR. MACMAHON: The fluid is not colored, but bile can be detected.

QUESTION: *Is typing necessary in the administration of plasma, pooled or unpooled?*

ANSWER:

DR. DAMESHEK: In pooled plasma, the blood group substances neutralize each other. Unpooled Group "O" plasma contains Anti-"A" and Anti-"B" agglutinins, and should be used only for those of blood group "O." In others, it may result in severe reactions.

QUESTION: *Assuming that the blood plasma is to be frozen or lyophilized, are serological examinations essential?*

ANSWER:

DR. DAMESHEK: Yes, always.

QUESTION: *What physiological processes come into play as a result of coronary thrombosis?*

ANSWER:

DR. PROGER: There are numerous physiological processes which come into play as a

result of coronary thrombosis. Some degree of shock, for example, may set in with its pathological-physiological picture. Heart failure may set in with various hemodynamic changes. There are certain physiological processes leading to the individual symptoms, such as pain. I suppose what is wanted here is more a description of the physiological processes which lead to the sudden death which one sees unfortunately so often in the first few days following coronary thrombosis, even though the pain may have been relatively minor and the attack itself apparently not overwhelming. Sudden death is probably due either to cardiac standstill or ventricular fibrillation, but then why do ventricular fibrillation and cardiac standstill supervene?

Some recent dog experiments have indicated that myocardial infarction may result in widespread spasm of the coronary tree as a result of which ventricular fibrillation may set in with death. This widespread spasm of the coronary vessels is presumably mediated through the vagus nerve, the impulses having reached the vagus nucleus by way of afferent fibres from the heart. But then one may ask, why do these impulses arise? It is my feeling that with infarction and hence muscle tissue damage certain intermediary products of muscle metabolism or certain metabolites appear in abnormal degree and are foreign to the heart muscle. These metabolites may conceivably in a chemical manner mediate the changes resulting in either ventricular fibrillation or cardiac standstill. There is good theoretical and some experimental evidence to indicate that this may be true.

QUESTION: *In view of the present war situation, is it advisable to routinely immunize patients against tetanus, typhoid and influenza?*

ANSWER:

DR. MACMAHON: At the present time, there is no suitable immunization against influenza and I would not think it would be necessary to immunize against the other two diseases if reasonable precautions could be maintained. Men in the Army should be immunized.

QUESTION: *Under what conditions are negative electrocardiograms misleading?*

ANSWER:

DR. PROGER: Negative electrocardiograms should never be misleading if we simply bear in mind that fact that a single negative electrocardiogram means nothing. In other words, if an electrocardiogram is negative we can only say that there is no electrocardiographic evidence of heart disease and we can say nothing more. There may be at the same time various forms of heart disease and in various degrees.

* * * * *

The columns entitled "Medical Queries Answered" are intended to stimulate discussion. The following discussion by Dr. Wilfred J. Comeau of Bangor, on questions raised in the Question Box and published in the January issue of THE JOURNAL OF THE MAINE MEDICAL ASSOCIATION is of undoubted value. The questions are therefore reprinted, together with Dr. Comeau's critical comments:

QUESTION: *Is digitalis indicated in myocardial failure due to coronary occlusion?*

ANSWERS:

DR. PRATT: No.

DR. KARSNER: It seems illogical to me.

DR. DAMESHEK: Don't some cases get right-sided failure and congestion of the liver—isn't it good then? But in left-sided ventricular failure, it wouldn't be useful. If a patient develops rales, it might be worth while.

DR. GOODWIN: Following an acute coronary where the heart is rapid and irregular, what would you use?

DR. PRATT: I think opium in acute heart failure is the most valuable drug to employ.

DR. DAMESHEK: In the case of coronary thrombosis with irregular, rapid heart action, quinidine may be very helpful, and may even prevent dreaded ventricular fibrillation.

Following is Dr. Comeau's comment:

"With due respect to Drs. Karsner, Pratt and Dameshek, I was amazed at the answers to the question: 'Is digitalis indicated in

myocardial failure due to coronary occlusion? I believe you will find that most cardiologists and internists will agree that although digitalis is not indicated in pure myocardial infarction, it is extremely important to use it if and when the signs and symptoms of heart failure appear following coronary thrombosis. The impression given in the answers to the question is pretty definitely against the use of digitalis. Since these questions will probably be read by a great many general practitioners, this answer may lead to the avoidance of digitalis in cases of heart failure following coronary occlusion when it certainly should be utilized as quickly as possible."

QUESTION: *What is the relation between angina pectoris and coronary occlusion?*

ANSWERS:

DR. PRATT: Many cases of severe angina pectoris are due to occlusion of a small branch of a coronary artery. Both are diseases of the coronary artery, resulting in anoxemia of the heart muscle.

DR. KARSHNER: It is now generally accepted that the symptoms of angina pectoris depend on anoxemia of the myocardium. This may be an anoxemia due to obliterative disease of the coronary arteries, or it may be a relative anoxemia in which the work of the heart is in excess of the capacity of the coronary circulation. Autopsies on cases of angina pectoris usually show coronary sclerosis and there are but few cases reported in which this is not true. It seems to me that it is impossible to make a differential diagnosis between angina and coronary occlusion without study of the electrocardiogram but it must be admitted that this is not a final and absolute criterion because even in cases of myocardial infarction, the electrocardiogram may not show any material disturbances.

DR. PRATT: There are a great many individuals who have mild angina on slight exertion in which the electrocardiogram is normal. In any case of severe angina, an electrocardiogram should be made.

DR. KARSHNER: Patients also may have coronary occlusion with little or no pain.

DR. GOODWIN: Those who do not have pain do have a sense of pressure that doesn't amount to pain.

DR. PRATT: Substernal pressure on exertion is of diagnostic significance in angina.

DR. GOODWIN: Does nitro-glycerin give you any clue?

DR. PRATT: If nitro-glycerin gives relief it tends to confirm the diagnosis of angina.

DR. DAMESHEK: Angina pectoris is a symptom and usually of coronary disease. The term coronary thrombosis might well be dropped as a clinical diagnosis, when what we really mean is myocardial infarction, which may or may not be due to coronary occlusion.

DR. KARSHNER: Your patient who has pressure and no pain—does it come on exertion?

DR. GOODWIN: It comes on with exertion.

DR. GOTTLIEB: I have seen many cases of coronary occlusion in which the electrocardiograms were normal. In one case there were fourteen lesions each occluding a coronary branch and yet the electrocardiographic tracings were all within normal range at various times. Often electrocardiograms indicating occlusion become negative subsequent to the healing process of the myocardium distal to the occlusion with or without recanalization of the vessels. If an occlusion occurs as a slow, progressive process permitting opportunity for the establishment of a collateral circulation, the electrocardiographic tracing will at no time show any evidence of the occlusion. Of course, acute occlusion is regularly mirrored in the tracing not because of the occlusion, but because of the distally infarcted myocardium.

Following is Dr. Comeau's comment:

"Again, Dr. Karsner's remark in the question: 'What is the relation between angina pectoris and coronary occlusion?' where he states that the differential diagnosis between angina pectoris and coronary occlusion cannot be made without the electrocardiogram, I believe gives somewhat of a wrong impression. In the majority of cases this differential diag-

Continued on page 237

Cancer of the Stomach

By ALLEN G. BRAILEY, M. D., Brookline, Massachusetts

The importance of cancer of the stomach as a problem in diagnosis and treatment can be emphasized in several ways. For instance, disease in this one organ causes between one-quarter and one-third of all deaths due to cancer. It causes nearly one-half of all male deaths due to cancer. It causes from thirty to fifty thousand deaths per year in the United States alone of which about one-quarter are women and three-quarters men. It constitutes about 40 per cent of all cancer occurring in the gastrointestinal tract and it is nearly twice as common, for example, as cancer of the colon.

The only form of treatment of cancer of the stomach which offers any hope of cure is surgical removal of the new growth and of a considerable portion of the surrounding stomach. Concerning even gastric resection there is widespread feeling of hopelessness and futility. The cures obtained are all too few in number and many a physician has never seen a cured patient. For several reasons the reports of the results of treatment are extremely confusing. In the first place only a few surgeons in the world have individually resected more than a small number of stomachs so that their results of whatever nature will be based on too few cases to be statistically significant. Then, also, any cures obtained may be reported in a variety of ways. They may be reported as a percentage of the total number of gastric cancer cases seen. They may be reported as a percentage of the total number of patients explored. They may be reported as a percentage of the total number of those explored in whom it was found possible to resect the lesion. They may be reported as a percentage of those patients who survived operation, etc., etc. The picture is further confused by the fact that one author may report as presumptive cures, those alive and well at the end of three years, and others those alive and well at the end of five years, and still others report only those who have survived ten years and so on. Unless these

facts are borne carefully in mind it will be found impossible to compare the results of resection in one clinic with those in another clinic or to form any accurate impression of the status of surgical treatment. A recent monograph by Livingston and Pack¹ entitled, "End Results in the Treatment of Gastric Cancer" constitutes an analysis of all reported gastric resections for cancer from the time of Theodore Billroth, who made the first successful resection sixty years ago, and it weighs and corrects these sources of confusion in published statistics.

In order to get a fair picture of the results which may be obtained by gastric resection for cancer, it is important to separate the total number of cases into two distinct groups. First, resectable cancer and second, non-resectable cancer. Non-resectable cancer constitutes those cases already so far advanced when first seen that there is no possibility of removing the growth in toto. The situation of such patients is completely hopeless and their death rate of 100% should not be laid at the door of the surgeon who could not help them nor should it be allowed to obscure completely the good results which may be obtained in resectable cancer. At the present time about 75% of all cases of gastric cancer are in an obviously hopeless state when first seen. Cooper² in an analysis of 264 cases found that he could divide the responsibility for late diagnosis between the patient, his family physician and the general hospital about as follows: The patient could be blamed for a delay of about 8 months from the time his earliest symptoms appeared, his physician for an additional four and one-half months from the time that the patient first appealed to him, and the general hospital for delay of one month or more after the patient was admitted for study. Obviously there is an initial period after cancer cells first develop during which no symptoms whatever are produced and which must represent an irreducible minimum of delay between the

onset of disease and the possibility of treatment but we can hope to diminish these cumulative delays which occur after symptoms are produced and for which the burden of guilt must be divided between the patient and the profession. Increasing efforts must be made to educate the public as to the possible significance of early symptoms and to the need of consulting the doctor early for his interpretation. An increasing effort must also be made to teach the doctor to consider the possibility of cancer first and not after a long course of ulcer treatment has proved ineffective. The diagnostic tool of paramount value is the gastro-intestinal series when competently done. It will have to be used much more frequently in the future if more cancer of the stomach is to be discovered in a resectable stage. It is very interesting, however, that the greater the experience of any given surgical clinic the greater the percentage of total cancer cases which it finds resectable. Surgeons are still far short of their goal in this regard as attested by the fact that when persons who die of cancer of the stomach are autopsied approximately one-fourth have the disease still limited to the stomach or to the stomach and immediately adjacent lymph cells.

At the present time about fifteen to thirty-five percent of gastric cancer cases are found to be resectable depending on the clinic reporting, but this represents no negligible amount of disease. It is estimated that there are about ten thousand persons who come to doctors in the United States every year who have gastric cancer in a resectable state, that is, a presumptively curable state. No such number are cured, however. The discrepancy between the number who might conceivably be cured and those who are in fact ultimately cured is made up first of a considerable number who die as the result of the operation. One must also subtract those persons who have a recurrence of the disease in spite of surgical efforts. Such cases are an indication of fallible judgment as to how much tissue should have been removed. Finally one must subtract those who die of intercurrent disease before they can reach the end of the chosen follow-up period of 5 years or 10 years. Since gastric cancer is a disease of elderly people the number who will certainly die of

other diseases during the succeeding five or ten years is fairly considerable. Of all patients with cancer of the stomach who submit to gastric resection about 25% are alive and well at the end of 5 years but if one selects those cases whose disease was confined to the stomach wall, 55 to 60% are alive and well at the end of 5 years. It is possible, then, to look at this problem from two points of view. If one's attention is focussed on the total incidence of cancer of the stomach, it is extremely disheartening to be told that less than 5% are alive at the end of 5 years. If, on the other hand, one's attention is fixed on those for whom treatment offers some hope, that is resectable cancer, then the percentage of cures which we have already obtained takes on a very impressive and stimulating significance.

The life history of this disease may be divided into three periods. First, there is an early period during which the lesion is too small to produce any clinical symptoms. The duration of this period may be measured by a few weeks or by several months. If the disease is close to the pylorus and of a high grade of malignancy it will obviously produce symptoms early whereas a lesion of the fundus of low malignancy will be slow to cause significant trouble. This first or silent period is followed by a period of clinical symptoms. These symptoms are vague at first. They do not compel a consideration of cancer, frequently they do not even compel consideration of the stomach as a disease focus. Finally there is a third stage when cachexia, obstruction, hematemesis or palpable metastases make the diagnosis manifest. During the first or silent period and during the third or late period, the disease is beyond our grasp but the second period of early symptoms deserves our closest consideration. Often the first complaint is a sense of fullness after meals. Often the patient begins soon to lose a little weight because the sense of fullness is relieved by eating less. Soon the desire for food begins to fall off. Increased gassiness is early complained of and increased belching. Stomach distress is often momentarily relieved by swallowing and since a little air is carried down with each act of swallowing more air accumulates in the fundus to be belched up

again. Nausea and vomiting may appear early if the lesion is close enough to the pylorus to produce an element of obstruction. In about 25 or 30%³ of patients unwonted constipation is the first symptom complained of.

X-ray examination of the stomach is the diagnostic weapon which must be chiefly relied upon. A single negative report cannot be accepted but the examination must be repeated if the symptoms persist. At this point the doctor will often be confronted with the problem of differentiating between cancer and benign gastric ulcer. Gastric analysis for the determination of free acid is of some value but it is not definitive. In general, of course, cancer of the stomach is associated with stomach contents which contain little or no free acid. Oughterson and Irons⁴ reporting on a series of 126 cases found a free acid of more than 45 units in only 7, or 5½%. Gastroscoy⁵ should be employed more frequently. An ulcer with a clean base and sharply defined margin will usually prove to be benign, whereas one with a dirty base and a nodular border is probably cancer. The location of the ulcer is an extremely valuable differential point. Hampton and Holmes⁶ have shown that 75% of ulcers occurring within 1 inch of the pylorus proved on pathological examination to be cancer. One should not be lulled into a sense of security because the symptoms regress on ulcer treatment or because the lesion actually appears to grow smaller by X-ray observation, since it has been shown that lesions which are actually cancer may so improve for a short time. Stools should be examined for occult blood. Preferably this examination should be deferred until the patient has been on a diet without meat or iron-containing medication for at least three days. If blood is found, it simply presumes an oozing lesion somewhere in the digestive tract and says nothing as to its nature or location. One must not forget the possibility that the patient harbors an ulcerating lesion in the colon as well as the stomach.

When it is decided that the patient has a lesion of the stomach which may be cancer,

the question of its resectability will at once arise. Much less importance should be attached to the size of the mass as apparent by X-ray or gastroscopy. Experience has shown that highly malignant cancer may have metastasized widely within a few months of the onset of symptoms and while the primary focus is still comparatively small. On the other hand, cancer of lesser malignant grade may have produced a large ulcerating mass and have led to an alarming decline in health and yet be confined to the stomach and immediately adjacent lymph nodes. Peritoneoscopy⁷ should be used far more widely in deciding the question of operability. It is a simple procedure involving a negligible risk to the patient. By its use the experienced endoscopist seldom has any difficulty in getting a direct view of the peritoneum (including the pelvis), the liver, the stomach and its adjacent lymph drainage. In some cases his report will encourage an attempt at resection in patients who appeared clinically to be probably inoperable. In others his demonstration of widespread metastases will spare persons already ill the additional expense and suffering of laparotomy.

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Editorial

Appointment and Promotion of Doctors in Service

The new policy of appointment and promotion of medical officers in the service, announced by the Surgeon General of the Army, became effective on September 15, 1942.

This is a sound policy designed to fill position vacancies by promotion of men already in the service, insofar as possible, and by raising the standards for appointment in grades above that of First Lieutenant, and so make achievement the basis of promotion.

The following bulletin from The Office of the Surgeon General will clarify this policy.

"The Surgeon General of the Army published detailed information concerning policies governing the initial appointment of physicians as medical officers on April 23, 1942. Necessary changes are given wide publicity, at his request, in order that the individual applicants, and all concerned in the procurement of medical officers, may know the status of such appointments.

"The current military program provides for a definite number of position vacancies in the different grades. The number of such positions must necessarily determine the promotion of officers already on duty and, in addition, the appointment of new officers from civilian life. Such appointments are limited to qualified physicians required to fill the position vacancies for which no equally well qualified medical officers are available. *Such positions calling for an increase in grade should be filled by promotion of those already in the service, insofar as possible, and not by new appointments.*

"If this policy is not followed, it would definitely penalize a large number of well qualified Lieutenants and Captains already on duty by blocking their promotions which have been earned by hard work. In view of these facts, *it has been deemed necessary to raise the standards of training and experience for appointment in grades above that of First Lieutenant.*

"With this in view, the Surgeon General

has announced the following policy which will govern action to be taken on all applications after September 15, 1942.

"All appointments will be recommended in the grade of First Lieutenant with the following exceptions:

CAPTAIN

"1. Eligible applicants between the ages of 37 and 45 will be considered for appointment in the grade of Captain by reason of their age and general unclassified medical training and experience.

"2. Below the age of 37 and ABOVE the age of 32, CONSIDERATION for appointment in the grade of Captain will be given to applicants who meet all of the following minimum requirements:

- "a. Graduation from an approved medical school.
- "b. Internship of not less than one year, preferably of the rotating type.
- "c. Special training consisting of three years' residency in a recognized specialty.
- "d. An additional period of not less than two years of study and/or practice limited to the specialty.

"3. Eligible applicants who previously held commissions in the grade of Captain in the Medical Corps (Regular Army, National Guard of the United States, or Officers' Reserve Corps) MAY BE CONSIDERED for appointment in that grade provided they have not passed the age of 45 years.

MAJOR

"1. Eligible applicants between the ages of 37 and 55 MAY BE CONSIDERED for appointment under the following conditions:

- "a. Graduation from an approved school.
- "b. Internship of not less than one year, preferably of the rotating type.
- "c. Special training consisting of three years' residency in a recognized specialty.
- "d. An additional period of not less than seven years of study and/or practice limited to the specialty.
- "e. The existence of appropriate position vacancies.
- "f. Additional training of a special nature of value to the military service, in lieu of the above.

"2. Applicants previously commissioned as Majors in the Medical Corps (Regular Army, National Guard of the United States, or Officers' Reserve Corps) whose training and experience qualify them for appropriate assignments may be CONSIDERED for appointment in the grade of Major provided they have not passed the age of 55.

LIEUTENANT COLONEL AND COLONEL

"In view of the small number of assignment vacancies for individuals of such grade, and the large number of Reserve Officers of these grades who are being called to duty, such appointments will be limited. Wherever possible, promotion of qualified officers on duty will be utilized to fill the position vacancies.

"Much misunderstanding has arisen concerning recognition by Specialty Boards and membership in specialty groups. It will be noted that mention is not made of these in the preceding paragraphs. This is due to the variation in requirements of the different Boards and organizations. Membership and recognition are definite factors in determining the professional background of the individual, but are NOT the deciding factors, as so many physicians have been led to believe.

"The action of the Grading Board, established by the Surgeon General in his office, is final in tendering initial appointments. Proper consideration must be given such factors as age, position vacancies, the functions of command, and original assignments. All

questionably initial grades are decided by this board. Due to the lack of time, no reconsideration can be given.

"There are in the age group 24-45 more than a sufficient number of eligible, qualified physicians to meet the Medical Department requirements. It is upon this age group that the Congress has imposed a definite obligation of military service through the medium of the Selective Service Act. The physicians in this group are ones needed NOW for active duty. The requirements are immediate and imperative. Applicants beyond 45 years may be considered for appointment only if they possess special qualifications for assignment to positions appropriate to the grade of MAJOR or above."

Maternal and Child Welfare

PRENATAL CARE

Women's magazines, newspapers, the Bureau of Health and its visiting nurses are constantly telling the expectant mother to "see your doctor." Many women are taking this advice seriously and many physicians are demonstrating its wisdom. There are, however, many women who are disappointed by their visit to the doctor, receiving only a hurried check on blood pressure and urine and being told to "Call me when you need me." Such a man is not only denying his patient comfort and guidance through a period which is to her momentous, perplexing, and sometimes terrifying, but is denying himself the assurance that comes from being forewarned and therefore forearmed. The accoucheur who comes to the delivery room knowing that he is faced with a breech presentation or a contracted pelvis, or that the parturient has mitral stenosis, is not confronted with the painful surprises that bring midnight panic to one who was snoozing happily in the blissfully ignorant hope that "everything would be normal."

What then are the minimum requirements of adequate prenatal care that will do justice to the patient and the physician? The following seem to us reasonable: Educate your patients to come to you EARLY in preg-

nancy. At the first visit enquire into the family history for constitutional disease or obstetric difficulties in the immediate family, and the health of husband and children if any. The duration of the marriage has some bearing. If this is the first pregnancy after years of marriage, glandular defect in one partner should be thought of. Furthermore, this patient is likely to wish particular instruction in means of avoiding a miscarriage.

The personal history should be taken particularly for serious infections, diseases of the heart, lungs, or kidneys, operations or injuries, especially those involving the lower abdomen or pelvis. The menstrual history, if abnormal, may suggest glandular disorder. The course of previous pregnancies, deliveries, and puerperia, and the size of babies are important. The history of the present pregnancy includes the date of the last period, enquiries for nausea, heartburn, headache, visual difficulties, constipation, frequency, dysuria, oedema.

At this first visit a complete physical examination should be done. The height, weight, pulse, and blood pressure are recorded. Note is made of the general body build and distribution of fat and hair. Special attention is directed to the teeth, tonsils,

thyroid, heart, lungs, abdomen (scars, hernia) and extremities (oedema, varicosities).

Pelvic examination discloses the state of the vaginal outlet and gives warning of possible unusual resistance. The state and position of the fundus and cervix are noted and adnexal masses and tenderness found if present. At this time the inclination of the sacrum and size of the bony outlet can be determined. If the promontory of the sacrum can be touched by the examining finger, or if the pubic arch is narrow the physician is warned of trouble then and there. The distance between the tuberosities of the ischia is now determined and the anus inspected for hemorrhoids and stricture.

If the pregnancy is sufficiently advanced, the height of the fundus, the position and condition of the foetus (foetal heart), and the amount of amniotic fluid are estimated. The external measurements of the pelvis are determined, particularly the intercrystal, interspinous, and external conjugate.

A moderate amount of laboratory work is essential. The hemoglobin should be determined and blood sent away for a Kahn test. The urine is tested for specific gravity, reaction, presence of albumen, glucose, blood cells and casts in the sediment.

On the basis of information obtained from this examination (most of which takes less time to do than to write) the patient should be explicitly advised. If everything is normal, she should be told so, the calculated date of confinement stated, and general advice as to hygienic living given. Diet, work, rest, recreation, exercise, bathing, and intercourse should be mentioned as the patient is often anxious about them and frequently too bashful to ask questions. Abnormalities, if found, should be pointed out in a way calculated to secure coöperation in treatment while arousing as little alarm as possible. She should be advised to see her dentist.

The patient's questions should be answered briefly but clearly without the use of technicalities. A diagram or model of the pelvis is often useful. She should be warned that there are people who love to talk about the obstetric disasters they have heard about, and others who offer distinctly bad advice. Tell her she may feel free to ask you about any problems.

Finally, warn the patient to tell you at

once of the occurrence of unusual headache, blurring of vision, or vaginal bleeding. Admonition to return in a month, bringing a specimen of urine ends the interview.

At subsequent visits the weight and blood pressure are always recorded and the urine examined. After the patient's general statement of her condition, specific questions are asked concerning the cardinal symptoms of toxemia (headache, blurring of vision, abdominal pain, oedema). At suitable intervals the height of the fundus and the position and condition of the fetus are determined. If additional calcium and vitamins are needed they should be prescribed. Remedies for constipation and hemorrhoids should not be left to the patient. It is often wise to prescribe iron.

At the fourth or fifth month the patient usually wishes to know about a maternity girdle. Most women are more comfortable with one. The physician may send her to a reliable corsetiere or tell her the principles to be observed in choosing one. A firm back and a non-constricting, boneless, shell-like front are the essentials. The brassiere should be of the uplift type. Broad, low-heeled shoes and loose but attractively colored and styled dresses will add much to the comfort and pleasure of the mother-to-be.

At the sixth or seventh month attention should be directed to the breasts. The patient, if healthy, should be influenced as strongly as possible to nurse her baby. (More about this later). Daily washing of the nipples with soap and water, followed by alcohol, and then by lanolin or cocoa butter will do much to prepare them for their function. The idea is to keep them soft. (You wouldn't "harden" chapped hands, would you?) If they are flat or moderately inverted, they may be gently drawn out.

After the seventh month vigilance should be increased and if any rise in the blood pressure, particularly the diastolic, unduly rapid increase in weight, or albuminuria appears, fortnightly or weekly visits should be demanded and appropriate precautionary measures taken. The hemoglobin should be estimated again. The patient must be specifically told to report symptoms of trouble.

(To be continued.)

YOUR COMMITTEE ON MATERNAL
AND CHILD WELFARE.

COUNTY SOCIETIES

Androscoggin

President, Camp C. Thomas, M. D., Lewiston
Secretary, Charles W. Steele, M. D., Lewiston

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President, Thomas G. Harvey, M. D., Mars Hill
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County News and Notes
Kennebec

A meeting of the Kennebec County Medical Association was held at the Augusta House, Augusta, Maine, Thursday evening, September 17, 1942.

Dinner at 6.30 P. M., which was followed by a business meeting. Minutes of the last meeting were read and approved.

It was voted to omit the October and November meetings and to hold the annual meeting at the Augusta State Hospital on the second Thursday in December.

It was also voted that because of the shortage of physicians as the result of so many having gone into military service, and because of the rationing of gasoline and the restrictions on rubber, that a committee of three be appointed to write a series of articles to be published in the *Kennebec Journal* and the *Waterville Sentinel*, containing suggestions whereby the public can aid the medical profession in making the most efficient utilization possible of available medical service. The committee was appointed as follows: George R. Campbell, M. D., Augusta; Blynn O. Goodrich, M. D., Waterville; and Chalmers G. Farrell, M. D., Gardiner.

Carl H. Stevens, M. D., of Belfast, President of the Maine Medical Association, was present and spoke of matters pertaining to the State Association and the physicians in medical service.

The speaker of the evening was Brig. Gen. John G. Towne, whose subject was *Procurement and Assignment of Medical Officers for the Army*. He stated that Kennebec County had the largest percentage of physicians in military service of any county in the state and that Maine's quota for the year was already filled.

Gen. Towne's subject was discussed by George E. Heels, Captain, M. C., Medical Officer, Recruiting and Induction Station, Portland, Maine, who offered many additional facts.

Both speakers were very interesting and their remarks were followed by a general discussion.

There were 31 members and guests present.

Respectfully submitted,

FREDERICK R. CARTER, M. D.,
Secretary.

Piscataquis

The Annual Meeting of the Piscataquis County Medical Association was held at the Mayo Memorial Hospital, Dover-Foxcroft, Maine, on September 17, 1942, with seven members out of a possible eleven present.

The following officers were elected for the coming year:

President: Albert M. Carde, M. D., Milo.
Vice-President: Ralph C. Stuart, M. D., Guilford.
Secretary-Treasurer: Harvey C. Bundy, M. D., Milo.

HARVEY C. BUNDY,
Secretary.

Change of Address

Adrian H. Scotten, M. D.

From: 201 State Street, Portland, Maine
To: 32 Deering Street, Portland, Maine

Members in Military Service*

Oxford

Corliss, Leland M.,

West Paris

Somerset

Ball, Franklin P.,

Bingham

Piscataquis

Howard, George C.,
Thomas, Ruth B.,Guilford
Dover-Foxcroft

* Under this heading will be published, in each issue, a list of members in military service as received at this office during the past month. Complete list to August 25, 1942, published in the September, 1942, issue of the JOURNAL, pages 213, 214.

Necrology

Anthony D. J. Pelletier, M. D.

Anthony D. J. Pelletier, M. D., born in Lewiston, was accidentally drowned in Mooselookmeguntic Lake, on July 4, 1942. He was the son of Mrs. Rose Pelletier and the late Doctor Joseph Pelletier of Bridge St., Lewiston. He attended the Lewiston public schools, graduating from Lewiston High School in 1926. He was always very fond of fishing and hunting, especially in the Rangeley region where he spent many vacations.

Doctor Pelletier attended the University of Maine where he was an outstanding student and popular among his classmates. He graduated in 1930 and went directly to Yale Medical School, where he graduated in 1934 in the upper third of his class. In the same year he married Miss Barbara Hunt of Portland and continued his studies as interne in the Kings County Hospital,

Long Island City, New York. There he specialized in Surgery and then returned to Lewiston to begin practice there in 1936.

He soon received an appointment on the medical service of the Central Maine General Hospital and was an adjunct of the thyroid service. He was popular among his patients as well as the doctors of the two cities and had just moved into a fine residence when he met his untimely death.

He leaves his wife, one son and his mother, his father having passed away a few years ago. Many families in the vicinity of Lewiston and Auburn have lost a very dear friend and family physician, and the Medical Society of Maine has lost a well-trained, capable surgeon.

W. P. W.

Notices

Community Blood Donor Service, Inc.

The Community Blood Donor Service, Inc., located at the Maine General Hospital, 22 Arsenal Street, Portland, has been formed to establish and maintain a Blood Bank for war or other emergencies arising in hospitals connected with the service. This service is being conducted under the auspices of the York and Cumberland County Medical Societies and is sponsored by the Office of Civilian Defense.

Blood donors are needed, especially men, in order that a sufficient supply of plasma may be stored in hospitals in York and Cumberland counties, and be available when the need arises.

THOMAS W. GOAD,
Executive Secretary.

State of Maine

Board of Registration of Medicine

Adam P. Leighton, M. D., Portland, Secretary.

List of Applicants Passing the State Board on July 8, 1942.

Through Written Examination

Robert Laurie Allen, M. D., Rockland, Maine.

John Littlefield Buckley, M. D., 52 Neal Street, Portland, Maine.

John Hurlbut Buell, M. D., U. S. Marine Hospital, Detroit, Michigan.

Paul W. Burke, M. D., Water Works, State Street, Bangor, Maine.

Carl Cricco, M. D., 708 Jefferson Street, Hoboken, N. J.

William B. Gellman, M. D., Molly Stark Sanatorium, Canton, Ohio.

Leon George Hagopian, M. D., Manset, Maine.

Howard Thomas Karsner, M. D., Western Reserve University, Cleveland, Ohio.

Preston Kyes, M. D., North Jay, Maine.

Rolf Lium, M. D., 388 State Street, Portsmouth, N. H.

John E. Lorenz, M. D., c/o Bethesda Hospital, Cincinnati, Ohio.

Charles Alexander Macgregor, M. D., 7 Knox Street, Rumford, Maine.

Edward Atkinson McFarland, M. D., Lisbon Falls, Maine.

Albert Willis Moulton, Jr., M. D., 180 State Street, Portland, Maine.

Abraham Leib Rauchwerger, M. D., Methodist Hospital of Central Illinois, Peoria, Ill.

Merrill Benjamin Rubinow, M. D., 192 E. Center Street, Manchester, Conn.

Kurt Arthur Sommerfeld, M. D., Camp Menatoma, Kents Hill, Maine.

George J. B. Weiss, M. D., Bellevue Hospital, New York, N. Y.

Through Reciprocity

Mary Bruins Allison, M. D., Grindstone Inn, Winter Harbor, Maine.

John R. Davies, Jr., 2 E. Chestnut Ave., Philadelphia, Pa.

Richard Arthur Durham, M. D., 25 Argilla Road, Ipswich, Mass.

Armand Stanley Lincourt, M. D., Box 288, Westboro, Mass.

Ota C. Loud, M. D., 45 Highland Ave., Bangor, Maine.

Roland Lawton McCormack, M. D., Norway, Maine.

Frances Campbell McInnes, M. D., Cobb's Camps, Denmark, Maine.

Frederick Zerkowitz, M. D., St. Mary's Hospital, Waterbury, Conn.

Examinations *American Board of Obstetrics and* *Gynecology*

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Saturday, February 13, 1943, at 2.00 P.M. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the Secretary by November 16, 1942.

Effective this year there will be only one general classification of candidates, all now being required to have been out of medical school not less than eight years, and in that time to have completed an approved one year general rotating internship and at least three years of approved special formal training, or its equivalent, in the seven years following the interne year. This Board's requirements for internships and special training are similar to those of the American Medical Association, since the Board and the A. M. A. are at present coöperating in a survey of acceptable institutions. All candidates must be full citizens of the United States or Canada before being eligible for admission to examinations.

All candidates will be required to take the Part I examination, which consists of a written examination and the submission of twenty-five (25) case history abstracts, and the Part II examination (oral-clinical and pathology examination). The Part I examination will be arranged so that the candidate may take it at or near his place of residence, while the Part II examination will be held late in May, 1943, in that city nearest to the largest group of candidates. Time and place of this latter will be announced later.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Peptic Ulcer Film Available

There is now available for free showings before groups of physicians the first complete movie film on peptic ulcer, in color and with sound track.

The film is entitled "Peptic Ulcer" and was produced under the direction of the Department of Gastroenterology of the Lahey Clinic of Boston. The American College of Surgeons has awarded its seal of approval to the film.

Running time of the film is 45 minutes, 1,600 feet of 16 mm. film, and covers a presentation of the following problems of peptic ulcer: Pathogenesis, diagnosis, treatment, pathology, complications, including obstruction, hemorrhage, and perforation, gastric ulcer, surgery and jejunal ulcer.

Arrangements for a showing of the film may be made by writing to the Professional Service Department of John Wyeth and Brother, Inc., Philadelphia, who will provide projection equipment, screen, film, and operator for medical groups, without charge.

Book Review

The Care of the Aged—"Geriatrics"

By: Malford W. Thewlis, M. D., Attending Specialist, General Medicine, United States Public Health Hospital, New York City; Attending Physician, South County Hospital, Wakefield, R. I.; Special Consultant, Rhode Island Department of Public Health.

Fourth Edition, Thoroughly Revised.

With 50 Illustrations.

Published by The C. V. Mosby Company, St. Louis, 1942. Price, \$7.00.

The first edition of this book appeared in 1919, the second in 1936, the third in 1941, and today, the fourth edition goes forth to deal with the problems of advancing years. Geriatrics is becoming a specialty. It is being recognized today that the ills of the aged are a special problem. This book is well written and should be in the library of every general practitioner of medicine.

The book is divided into four sections, namely: General Considerations; Miscellaneous Geriatric Problems; Specific Infections; Noninfectious Diseases; Pathologic Conditions in Old Age.

Medical Queries Answered—Continued from page 228

nosis is easily made solely on the basis of the history. To be sure, the electrocardiogram is important in corroborating the clinical diagnosis of myocardial infarction and an electrocardiogram should be taken, if possible, whenever the clinical diagnosis of coronary thrombosis is made. In my experience, the electrocardiogram is most helpful in differentiating between myocardial infarction and pain of disease outside of the heart.

"I was most interested in your (Dr. Gottlieb's) remark of normal electrocardiograms in many cases of coronary occlusion. I presume that you are speaking from the patho-

logical standpoint wherein one frequently finds coronary occlusions, single or multiple, with little or no heart muscle damage. In my experience, however, it is extremely unusual not to find electrocardiographic changes in individuals who clinically have suffered a coronary occlusion, or better stated, myocardial infarction, although such electrocardiographic evidence may be at times several days or a week in making their appearance. In the cases which you mentioned, did these individuals give a history suggesting myocardial infarction?"

Proceedings
NINETIETH ANNUAL SESSION
Maine Medical Association
POLAND SPRING, MAINE
JUNE 21, 22, 23, 1942

CONTINUED FROM THE SEPTEMBER ISSUE OF THE JOURNAL, PAGE 219

CHAIRMAN STEVENS: The next report will be that of our Delegate, Dr. Neil A. Fogg, of Rockland, to the Connecticut State Medical Society meeting. Is Dr. Fogg here? If not, his report will be received at a later time.

Next, we shall have the report of Dr. Forrest B. Ames of Bangor, as delegate to the Massachusetts Medical Society.

DR. FORREST B. AMES of Bangor: Mr. Chairman and Delegates. It is a fact that I have been a member of the Massachusetts Medical Society ever since I practiced there two years, when I was beginning my medical work. I have retained my membership. Therefore, when I was asked to go again as an official delegate, I used the word "again" because I did go once, many years ago, I received that invitation with a good deal of pleasure, and made my plans accordingly.

The meetings were held May 25th, 26th, and 27th at the Hotel Statler in Boston. Very interestingly, they had the largest attendance of members that they have ever had in the history of the Society; that fact was commented upon, especially in view of the rather obvious fact that already many of the members have gone into the armed forces of the United States.

The meetings were crowded. The luncheons had difficulty in serving those who came. They had to bring in extra chairs for those who attended the scientific sessions, and, all in all, the spirit of enthusiasm and interest was very marked. It showed that the Massachusetts Medical Society was very well organized and that its members did take a great deal of interest in their proceedings.

The scientific exhibit and the commercial exhibit were also unusually large.

The annual meeting, which I attended, was rather lengthy. For many months and perhaps longer, a special committee had been working in the Massachusetts Medical Society, revising their by-laws. It seems that they haven't printed these for many years; in some cases, they needed to clarify certain points, and there were a few points of issue which came up and just prolonged the meeting. One of them was of considerable interest. It had to do with the admission into the Society of the so-called foreign doctors who came from other lands within the last few years. There was considerable feeling about this, because some of the men who had come from across were highly trained and very well qualified, and the set-up that was proposed was a five-year interval of licensure in the State, before they would be allowed to become members of the Massachusetts Medical Society.

Some of the men felt that would work a real hardship on these alien, so-called, physicians, but in the end the report of the Committee was

adopted, that this five-year term stand, and it was so voted.

The chief emphasis of the whole meeting was on the war. The scientific papers had to do with problems concerning preparations for war, and the problems of civilian defense and public health were emphasized throughout all the different meetings which were held.

When the time came to call on the State delegates, and this is just a little selfish interpolation, so to speak, it so happened that the delegate from Maine was the only one who responded from all of the New England states, and that was more than a little pleasure to me, and of course I was very cordially received by the officials and those who were at the meeting of delegates.

At the annual banquet, over 500 were in attendance, when, again, the members got some idea of the type of talk that Dr. Lahey had already given to some of the Maine doctors at Portland. He spoke, I think, less vigorously, nevertheless, just as emphatically about the need for enlistment of our younger medical men, speaking somewhat on the Procurement and Assignment end of it, and in no uncertain terms, as Dr. Foster has suggested he spoke at the A. M. A. meeting. He stated that the needs are very vital, and the men must realize that and respond.

Later, Dr. Fishbein spoke in a somewhat lighter vein, nevertheless very seriously emphasizing the medical situation throughout the country and emphasizing the steps taken in different places to meet the needs as they arose.

Following the banquet, again the congestion of attendance was shown. We adjourned to the lecture room in the hotel, and the meeting was delayed nearly three quarters of an hour while extra chairs were brought in to take care of the large attendance. It certainly was well worth while going to that particular meeting.

The Shattuck lecture, which is an educational institution with the Massachusetts Medical Society, was given by Dr. John F. Fulton, Professor of Physiology at Yale Medical School. He took for his subject, "Medicine and Air Supremacy." He approached it from a most interesting standpoint, and discussed, from the physiological standpoint, the problems which are being attacked in air medicine today, especially the effect of high altitudes on the human body, and also the reverse, the effect of crashes on the human body, and, discussing those from the standpoint of physiology in medicine, he gave us a most interesting evening.

Dr. Fulton spoke rather casually of an army of 7,000,000 or 10,000,000 men in the country before the thing is fully organized. He spoke almost as casually, but very emphatically, of a force of flight surgeons of over 20,000, emphasizing again

the need for enlistment of our younger, able-bodied physicians.

The scientific exhibits, I think, were, as usual, somewhat a replica of those we have seen in past years at the A. M. A., very nicely put on and very ably presented. One that perhaps appealed especially to me was the Symposium Exhibit on Diseases of the Biliary Tract, approached from different diagnostic methods, and including exhibits of surgical methods, also.

Exhibits on the blood banks, of course, are of vital importance to us in the State of Maine.

There were seventy-one technical exhibits, almost too many to take in, but I wandered around each of the two days and met many of the exhibitors, and the spirit of the whole convention was that the commercial exhibitors were, as we have found them in our own meetings, very much in sympathy with the doctors and in coöperation with them.

It was a very fine convention, far superior to the one I attended many years ago as a delegate. But, each year, it seems to me that the Massachusetts Medical Society does seem to work more as a unified group and, of course, a very large group.

So I want to thank you very much for sending me to Massachusetts. I enjoyed it very much, and I got some ideas that, as time goes on, I think I would like to have us follow in Maine in our own way, which, of course, we would do in any event.

Again, thank you very much. [Applause.]

CHAIRMAN STEVENS: Next, we shall have the report of Dr. Carl E. Richards of Alfred, who was our delegate to the New Hampshire Medical Society. Dr. Richards!

DR. CARL E. RICHARDS of Alfred: Mr. Chairman and members of the House of Delegates. I had the honor and the pleasure of attending the New Hampshire Medical Society meeting at the Hotel Carpenter, Manchester, New Hampshire, on May 12 and 13, 1942.

The meeting was very similar to ours. In the morning, there were conferences, and in the afternoon, the scientific sessions and the lectures were held. The subjects were well-chosen, and the speakers were authoritative and very interesting.

As many of you know, the Carpenter is a commercial hotel, very much like the Eastland Hotel in Portland, and, consequently, the meeting does not have the vacationland atmosphere that we have at our Annual Meetings.

At their House of Delegates' meetings, they voted to contribute \$1.00 for each member of the Society to the National Physicians' Committee.

The doctors' wives in New Hampshire have an auxiliary which is very active, and my wife went with me to New Hampshire and attended their meetings and the banquet, and they suggested to her to have me offer the suggestion that possibly Maine should have a similar organization.

They have another interesting thing in connection with their meetings; I refer to the Annual Contest, with Prize Essays, and with money prizes for the best paper presented by men throughout the State.

The prize for the essay on Surgery was given to a man in Portsmouth, New Hampshire, Dr. Lium, and I believe he is well known to the men in our county, because he has been over to our Society and talked to us.

The annual banquet was a very enjoyable affair, and, all in all, I should like to say that the meeting was of very high calibre, and I had a fine time.

I wish to thank you all very much for sending me. [Applause.]

CHAIRMAN STEVENS: Thank you very much,

Dr. Richards. At this time, Dr. Joseph E. Porter of Portland will report as Delegate to the Rhode Island Medical Society. Dr. Porter!

DR. JOSEPH E. PORTER of Portland: Mr. Chairman and members of the House of Delegates. I am very grateful to you for the opportunity to attend the Rhode Island Medical Society meeting. It covered two days, June 3 and 4, 1942. The afternoon meetings were held at the Rhode Island Medical Library at Providence, which is located about half a mile from the city, up near the State Capitol.

The mornings were devoted to clinics.

I attended the clinics at the Rhode Island Hospital. I listened to some very interesting discussions there, and I was very much impressed by the active, full-formed department of thoracic surgery. I think their results have been very good, comparatively good.

I listened, also, to a very interesting case presented by Dr. Lawson, and I point this out because the particular patient was a known diabetic, went into insulin shock, and had the lowest blood sugar I have ever seen.

The next morning I went to the Chapin House and watched a very well illustrated presentation of Diseases of the Chest. Following this, they showed a film, a colored movie, which lasted an hour, and it was a film on contagious diseases. I certainly would recommend that if anyone could get that film in the State of Maine, it would be very much worth while, since I think the facilities and the hospitalization are something to be desired at the present time.

During the afternoon session, the principal speaker was Dr. Chester Keefer of Boston; he spoke on the subject of Gramicidin, and that is something that I have wanted to hear about for a long time. The material is derived from the fungus *pencilium* and also from other bacteria, and this substance does have the power of killing gram positive bacteria.

In the evening, I listened to a well-illustrated paper on "Arteriosclerosis" by Timothy Leary, and other papers.

At the banquet, the principal speaker was a barrister from London, who compared Hitler with Napoleon.

The meeting, in general, was very much lacking in any discussion of a war-like character. In fact, I can't recall any papers that dealt particularly with war surgery or the handling of war casualties.

It might be interesting to note at this particular time that I spent an hour one day talking with Dr. Knight, who is head of the Milk Inspections Department there. The reason I am bringing this up is in view of the discussion we had this afternoon on the milk situation. They do have a law there which requires milk to be pasteurized before it is sold, but the problem doesn't end there. Apparently, they have to carry out very rigid tests on the milk, to be sure it is pasteurized, because they are always catching dairymen down there who are selling milk that is alleged to be pasteurized and is not. He told me the best test, out of numerous tests, was to determine the phosphatase in the milk. If the phosphatase is still present, it means it is not pasteurized. In other words, it is not destroyed. Then they come in under the Public Health Department, not the Agricultural Department.

I enjoyed my trip to Providence very much, because I was born there and I had the chance to renew many old acquaintances there.

Thank you very much.

CHAIRMAN STEVENS: Thank you, Dr. Porter, for that fine report.

Dr. Harry Butler of Bangor, our delegate to Vermont, was unable to be present because of his duties, but his report will be printed in the JOURNAL.

The next order of business will be the reports of Standing Committees that were not published or not submitted for publication in the June issue of the JOURNAL.

The first Committee is the Committee on Medical Education and Hospitals. Dr. Adam P. Leighton of Portland, Chairman of this Committee, has notified us that he is unable to be here today, but will be here tomorrow.

The next Committee is the Committee on Social Hygiene, and Dr. Benjamin B. Foster of Portland is Chairman of that Committee. Dr. Carter has the report of Dr. Foster, which he will read to us now.

SECRETARY CARTER: Dr. Foster wrote me a letter under date of April 28, 1942, as follows:

"Due to the loss of one of the members of the Committee on Social Hygiene, Dr. Merrill of Bangor, I have not called a meeting this year, and have no yearly report to offer. (Signed) B. B. Foster."

CHAIRMAN STEVENS: Next is the report of the Publicity Committee by Dr. Carter.

SECRETARY CARTER: Mr. Chairman, the publicity relative to the activity of the Association, the Fall Clinical Session and our Annual Meeting, has been prepared in our office and sent to the newspapers for release. They have been very coöperative and kind, and have printed anything that we have sent to them.

DR. THOMAS A. FOSTER: Mr. President, I would like to rise again to say that I think the report published in the Portland paper last Sunday about the meeting is one of the best reports I have ever seen, and I would like to congratulate the Committee on Publicity for the newspaper publicity we have had for this meeting.

I repeat that I think that was a splendid presentation of the coming meeting.

CHAIRMAN STEVENS: The next report is that of the Financial Advisory Committee, by Dr. George L. Pratt.

DR. PRATT: I would like to say that this report will be deferred until tomorrow.

CHAIRMAN STEVENS: We have next the reports of special committees not submitted for publication in the June issue of the JOURNAL. The first report will be that of the Tuberculosis Committee by Dr. Edward A. Greco of Portland.

SECRETARY CARTER: Dr. Greco telephoned that he would be unable to be here today, but that he would give his report tomorrow.

CHAIRMAN STEVENS: The next report will be the report of the Committee on Maternal and Child Welfare by Dr. Roland B. Moore, Chairman. Is Dr. Moore here? [There was no response.] Dr. Moore is not here. We may be able to secure his report later.

The next report will be that of the Committee to Secure Hospital and Medical Care, by Dr. Judd Beach, Chairman of that Committee.

DR. S. JUDD BEACH of Portland: Mr. Chairman and members of the House of Delegates. This report which I am submitting is the report of a voluntary Committee, composed of Dr. Foster and myself, who have done some work on this subject and have interviewed Dr. McCann, who is the Chairman of the Massachusetts Committee on Prepaid Medical Service. It has been authorized by mailed vote of the Committee, which has not met this year. The report is as follows:

The sponsors of Federal Compulsory Health Insurance have caused anxiety in the Medical Profession by introducing into Congress a plan for

prepaid hospital service. If this is, as it appears, the entering wedge for a general plan for state controlled prepaid medical care, physicians should awake to the danger that they may find themselves entangled in a bureaucratic scheme.

The present emergency with its shortage of physicians offers a fruitful ground for visionary welfare projects. Your Committee feels that the best answer to the impractical propositions that have from time to time been suggested, is for physicians to offer a better counter-proposal.

After studying various plans that have been tried, it finds the one most likely to fit this area to be that of the Massachusetts Medical Society.

We would respectfully suggest that the Council investigate this plan.

Dr. J. C. McCann, Chairman of the Massachusetts Committee, has agreed to explain it. We feel that it is of sufficient importance to warrant a special Council meeting for this purpose.

I am not submitting any detail in connection with this because I don't want to burden the House of Delegates with all of our investigations. But, if there are any questions regarding this, either Dr. Foster or I would be very glad to answer them.

DR. THOMAS FOSTER: May I have the honor of speaking again? I don't want to take the floor too much. I have had an interest in this subject which Dr. Beach brings before you.

When I was President, I asked the Council for permission to appoint a special committee to investigate hospital and medical care of the citizens of the State, and they unanimously gave me that permission, and a committee was appointed, consisting of one doctor in each district. The Committee had some meetings in which the purposes and aims of the Committee seemed to be rather vague, but the purposes and aims of the Committee boil down to the subject which Dr. Beach has presented to you, the possibility of the Federal Security Board, through the influence of Mr. Osni-meyer, securing Federal Legislation of a compulsory medical nature for health care.

As Dr. Beach said, we talked to Dr. McCann, who has introduced the subject to the Massachusetts Medical Society, where it has met with complete approval. The Massachusetts Medical Society voted him \$25,000 deposit against the success of the plan, and that is 25,000 gold dollars they took out of the Treasury to deposit in the Insurance Commissioner's office in a bank, to meet the needs of his prepayment medical plan on partial coverage for the low income group.

As Dr. Beach said, we have met with Dr. McCann and we had a long discussion with him, and we, with others, believe that the Federal Security Board are definitely committed for a Federal Plan of Medical Care. He believes, and Massachusetts apparently believes, that the best way to counteract that proposal is to have a plan of their own.

We were so impressed with Dr. McCann, in our conversations with him, that we thought it would be beneficial for this State Society to invite Dr. McCann to speak before a special meeting of the House of Delegates. It seemed unwise to ask him to come to a stated meeting, because the time is so short, and so many things needed to be done. The program covers so much time that it leaves little time for special considerations. This matter needs special consideration.

I think we were entirely sincere in proposing that this House of Delegates consider the advisability of a special meeting to hear Dr. McCann explain his plan, now accepted and adopted in the State of Massachusetts.

DR. S. JUDD BEACH: May I add a word to what

Dr. Foster has said? I do not know whether you people know who Dr. McCann is. He is the son of Dr. McCann of Bangor, practicing there a great many years, and a member of this Society. He has a great interest in the State. I think that is one of the reasons why he is willing to take the time to speak about this project.

I don't know whether the House of Delegates is aware of the number of plans that have been tried in various parts of this country, but there is a plan in California, as you know, and one in Michigan, and several, I think, in New York and New Jersey. All of them have been tried, and have had some reason why they were not entirely successful. Some of them have been very expensive, as a matter of fact, for the Societies, and the information about these plans is almost impossible to obtain. You can write to the A. M. A. and find out absolutely nothing about them. They will give you encouragement to carry out any plan you want to, but they have no material on which you can work.

I believe I wrote to all of the sponsors of these plans, and got their material, and I have gone over it carefully, and found the same thing that the Massachusetts Committee has found; that is, that they are apparently not adapted to our particular needs.

Now, the difference between the Massachusetts Plan and these other plans is that it is a partial covering plan, and one that looks as if it might have some prospect of being carried through without breaking the medical society or the medical profession. I don't think it is worth while to take the time of this House of Delegates to go into the details of these other plans. Yet, I think it would be well worth while to get Dr. McCann, who has all of this material at his finger tips, to give this information to the House.

DR. FORREST B. AMES: I met Dr. McCann in Massachusetts. I knew him when he was in Bangor. He is a fine young man. But here is one paragraph taken from the Massachusetts Medical Society program, which I will read to you:

"The first contract will cover hospital, obstetric, diagnostic, x-ray and surgery, including orthopedics."

In other words, it begins with one little group.

"Later on, the contract will cover all hospital medical expenses that have developed.

"Finally, the contract will cover medical care expenses, hospital, home and office."

Now, that is just a basic statement, and I thought from their little pamphlet that you might be interested in it.

CHAIRMAN STEVENS: Are there any other comments, or any action that anyone wishes to take concerning this subject?

DR. COBB: I might say that this was brought up before the Council, and Dr. Pratt was appointed by Dr. Ebbett to look into this thing. The first thing we have to have is \$10,000 to deposit with some insurance company. We haven't got it. This matter was tabled for the duration.

DR. PRATT: I would like to say that I tried to get some information on this subject, and I got the most of it from Dr. McCann, who, I think, knows more about the matter than anyone else that I know of. I also got some information out of the Michigan Plan and the Pennsylvania Plan. I think they all feel that if they are not going to be ruined financially, they have to start out with a limited coverage plan.

It would seem to me that before we started on anything, I would like to hear from Dr. McCann; I would like to hear him talk to the Delegates. But before we start on anything, it seems to me there are three questions we should answer to make up our minds about it.

The first one is whether we want to start it during the war emergency. We would get opinions on both sides of that question, perhaps.

Secondly, are we prepared to put up from \$7,000 to \$10,000 to start with, because if we followed the Massachusetts Plan, we are acting as an insurance company, and we would be under the supervision of the Commissioner of Insurance.

Third, and the most important and perplexing question is this. What would we do about the osteopaths?

CHAIRMAN STEVENS: Thank you, Doctor. As I understand it, this matter, as Dr. Cobb said, was tabled for the duration in the Council. However, I wish to give the members of this House of Delegates an opportunity to express themselves if they care to do so at this time.

DR. CARL RICHARDS: It seems to me that if the administration in Washington is going to put over any social security plan on us, they are going to do it during this emergency, and I should think we ought to be making some plans to take some steps at the same time that they are making theirs.

It certainly seems that we could have Dr. McCann up here, either to a Council meeting or to a meeting of the House of Delegates, and then we could find out what it is all about, and then we could talk it over and discuss it and see if we couldn't at least make tentative plans.

I don't believe it is a good idea to table such an

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important matter as this, for the duration. We haven't any idea of the length of the war, or how much legislation will be foisted upon us during the emergency.

Another thing, we are probably to go into the service—that is, a great many of the younger men like myself—and we will be away for the duration and we won't have a chance to say very much.

I think that the House of Delegates should hear Dr. McCann; in fact, I will make a motion that the House of Delegates go on record as favoring having Dr. McCann come to Maine and meet with either the Council or the House of Delegates and explain this whole plan to us, very shortly.

This motion was duly seconded by several of the members present.

DR. PLUMMER: I haven't heard all that was said, but I am a new man here, so perhaps I would like to get some information. I don't think it is any more our business to have anything to do with an insurance plan, or with people paying their bills at the hospital, than it is to start a fire insurance company.

If anybody wants to insure anybody else, if anybody wants to organize a company and insure them, that it all right with me. It is all right with me either way. But I don't consider it is any of our business at all. We are not in the insurance business, and that is truly what it would mean.

We cannot collect our own bills, and we have got to see what can be done about that as best we may do so, individually. But I would say it is none of the Society's business whether I collect my bills or not, or whether Dr. Pratt or any other doctor collects his fees; that is his business.

I have no objection to listening to Dr. McCann, but I think one great difficulty with the country as a whole, and I would like to interject this here without raising any political question, because a lot of this stuff didn't start with Roosevelt when he was inaugurated in 1933 but it had been gathering momentum for a good many years before; I would like to make the statement that I think when it gets so that the government not only of the State of Maine and the United States will tend to its own business and we will attend to ours as best we can, we will be better off, and we may begin to get somewhere.

CHAIRMAN STEVENS: Is there any further discussion?

DR. RAYMOND E. WEYMOUTH of Bar Harbor: As I understand this motion, it is not a motion whereby we may hope to collect our bills, but it is a motion whereby we may hope to have some bills to collect and not be on a salary.

DR. JAMESON: I would like to suggest that the motion be definitely in favor of having Dr. McCann address the House of Delegates rather than the Council, because I think the matter is one of great interest to a much larger body than the

council; therefore, I would like to have that motion crystallized into an invitation to appear before the House of Delegates rather than the Council. I should like to amend the original motion and suggest that it be specified that Dr. McCann come to Maine to speak before the House of Delegates.

DR. RICHARDS: I will accept that amendment.

CHAIRMAN STEVENS: Those in favor of the motion, as amended, will please signify by raising your right hand. Those opposed?

The motion was carried by a hand-raising vote.

CHAIRMAN STEVENS: The next order of business is a report of the Committee on Industrial Health, by Stephen Cobb.

DR. COBB: Mr. Chairman, I would like to say that the Council on Industrial Health is a function on paper only. We are planning to have a meeting at twelve o'clock tomorrow, and if any of you gentlemen are interested in industrial health, you are invited; I may have something to report then.

CHAIRMAN STEVENS: The next order of business is the report of the Committee on Conservation of Vision. Dr. Kershner is not here, but the report will be given by Dr. Carter.

SECRETARY CARTER: I received a letter from Dr. Kershner as follows:

"In reply to your letter of June 15, will say that the Committee has just been appointed, and will lay out their program of work at a meeting either on Monday or Tuesday. The only report that could be made now is that the Glaucoma problem will be the first subject of attack and consideration by the Committee. I hardly think it is necessary to even report that at the present time."

CHAIRMAN STEVENS: Is there any new business to come before the House of Delegates at this time?

SECRETARY CARTER: Mr. Chairman, I would like to call the attention of the House of Delegates of the First, Second and Third Districts that tomorrow they will be required to appoint a Councillor from the First District to take Dr. Cobb's place, as his term expires in 1942; also the Second District, to nominate someone in Dr. McCarty's place; and also the Third District, as you know Dr. C. Harold Jameson was appointed by the Council for the remainder of this year until the House of Delegates could fill Dr. Ellingwood's place. I would ask that you have your appointments ready for tomorrow.

CHAIRMAN STEVENS: Is there any other business to come before this meeting? If not, a motion is in order to adjourn until tomorrow at five-thirty.

DR. AMES: I move that we adjourn until tomorrow at five-thirty.

This motion was duly seconded and was carried.
[Adjournment at 7.00 p. m.]

Continued in the November Issue



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*The Work of the Bingham Associates Fund in Maine**

By JOSEPH H. PRATT, M. D., Sc. D., Boston, Massachusetts

Medical education is a life-long affair. When a physician ceases to be a student, he does not stand still, he slips backwards and deteriorates intellectually. Some physicians cease to be students when they finish their course of study in the medical school. Throughout their professional life which may cover a span of thirty or more years, the stream of medical progress moves swiftly on, but instead of moving with the current, these men crawl up on the bank. Years ago the widow of a physician gave me her husband's medical library. He, unlike the majority of medical men of his generation, had the advantage of a college education before taking up the study of medicine. Graduating from Harvard about 1840, he probably had as good a training as was then available in this country. Although he practiced medicine about forty years, the publication date of practically all the hundred or more books I acquired was prior to his graduation. During the last quarter century of his professional life, he apparently never added a book to his library. This was no exceptional case, I am sure, and doubtless could be duplicated many times in modern days.

The Committee on Graduate Education of the Maine Medical Association, of which Dr. Frederick T. Hill of Waterville is chairman, sent a questionnaire to every member of the Association. From a study of the replies, Dr. Hill concluded that while 25% are continuing their education satisfactorily by means of independent study with or without the aid of graduate courses, 25% are too far advanced in years to be expected to respond to the appeal of new knowledge and another 25% are indifferent, seemingly quite beyond being awakened from their lethargic state by any means at our command. The remaining 25%, Dr. Hill concluded, have possibilities and if given opportunities and encouragement to continue their education would probably do so to their great benefit and to that of their patients. In this committee's questionnaire, the reason was asked for not attending medical meetings and for not taking graduate courses for which the Commonwealth and the Bingham Associates Fund offered fellowships. Sample answers to this question quoted by Dr. Hill are illuminating: "too busy," "lack of time," "practice too large to leave," "no need for it." Here is

* Presented at the Second New England Institute for Hospital Administrators, June 20, 1942, in Boston.

one who thinks highly of himself: "as a country doctor I feel I know more than many of the so-called big clinicians who would teach us. Give me the facilities and I will rewrite Osler." One reason for not taking graduate courses at a distance from home doubtless held by many was expressed by one as follows: "Some of my good patients have been lost to other doctors when I was away and they keep them, also get the appendix out of some." Dr. Hill's comment is "Change appendix to tonsils and, I fear, the statement applies to otolaryngology."

Much has been done during the past ten years and more can be done in the State of Maine to aid physicians continue their self-education. It is an encouraging fact that the survey of Dr. Hill's committee shows that no less than 50% is eager or at least willing to avail themselves if opportunities are offered.

Eleven special opportunities available in Maine for the continuing education of the physician are as follows:

1. The hospital extension service sponsored by the Bingham Associates Fund.
2. The staff meetings of the local hospital.
3. The meetings of the County medical society.
4. The clinics and demonstrations by visiting physicians in local hospitals.
5. Weekly and monthly courses at the Joseph H. Pratt Diagnostic Hospital.
6. The diagnostic study of cases at the Joseph H. Pratt Diagnostic Hospital.
7. The monthly clinical days at the Central Maine General Hospital conducted by distinguished visiting clinicians.
8. The Gerrish Memorial Library at the Central Maine General Hospital, Lewiston.
9. The Bulletin of the New England Medical Center issued bimonthly.
10. The meetings of the Maine Medical Association.
11. Commonwealth Fund fellowships.

It was the desire in the heart and mind of William Bingham 2nd that the sick people in

the smaller towns and villages of Maine should have the best possible medical care that led him to found in 1931 the Bingham Associates Fund. He recognized that the small hospitals should have proper facilities and that opportunities for continuation education should be provided for the members of the staffs of these hospitals. Members of the medical profession of Maine have shown keen appreciation of Mr. Bingham's efforts and have given his work hearty support. Under the supervision of its president, Dr. George Bourne Farnsworth, the Bingham Associates Fund has coöperated with the hospitals in building up mutual organization in Maine for hospital care and the continuation education of physicians which is already accomplishing much good. The plan is one of decentralization. It recognizes that the small hospital can be made the most important factor in the education of the physician as well as in the care of the sick. As Dr. John C. Leonard has said, the size of a hospital is no criterion of the value of the service it renders. Through the hospital extension service of the Bingham Associates, thirteen of the small hospitals in Central Maine have become affiliated with the Central Maine General Hospital at Lewiston, and eleven hospitals in Eastern Maine with the Eastern Maine General Hospital at Bangor. The following is a list of the hospitals:

Bangor Group:

Eastern Maine General Hospital, Bangor.
 Waldo County General Hospital, Belfast.
 Castine Community Hospital, Castine.
 Blue Hill Memorial Hospital, Blue Hill.
 Mount Desert Island Hospital, Bar Harbor.
 Washington County Hospital, Machias.
 Lubec Hospital, Lubec.
 Aroostook Hospital, Houlton.
 Calais Hospital, Calais.
 Milliken Memorial Hospital, Island Falls.
 Charles A. Dean Hospital, Greenville.
 Mayo Memorial Hospital, Dover-Foxcroft.

Lewiston Group:

Central Maine General Hospital, Lewiston.
 Brunswick Hospital, Brunswick.
 Bath Memorial Hospital, Bath.

St. Andrew's Hospital, Boothbay Harbor.
 Miles Memorial Hospital, Damariscotta.
 Knox County General Hospital, Rockland.
 Camden Hospital, Camden.
 Augusta General Hospital, Augusta.
 Sisters' Hospital, Waterville.
 Thayer Hospital, Waterville.
 Redington Memorial Hospital, Skowhegan.
 Franklin County Memorial Hospital,
 Farmington.
 Rumford Community Hospital, Rumford.
 St. Mary's General Hospital, Lewiston.

Dr. J. C. Hiebert in his recent presidential address before the New England Hospital Assembly commended the work of the Bingham Associates Extension Service and pointed out that "certain special services will never be available in the rural areas unless larger hospitals help the smaller institutions. It has now been well demonstrated that it is possible for hospitals to work together in order to supplement one another's services, especially in the X-ray and laboratory departments." This statement was based on his observations and experience as superintendent of the Central Maine General Hospital. The plan of the Bingham Extension Service was designed and directed by Dr. Samuel Proger, professor of clinical medicine at Tufts. This he has described in detail in two excellent papers. Dr. D. Allen Craig, medical director of the Eastern Maine General Hospital, has had general charge of work in the Bangor District and Dr. Everett L. Higgins, chief of the medical staff of the Central Maine General Hospital, is the president of the Central Maine Bingham Associates Fund Committee through which the extension services to small hospitals from a large hospital as a regional center was set up and carried out.

The two regional centers in Lewiston and Bangor in turn are affiliated with Tufts College Medical School and the New England Medical Center.

The hospital extension service provides:

- a. Pathological examinations for all of the twenty-four affiliated small hospitals.
- b. Interpretation of X-ray films and fluoroscopic examinations.

- c. The training of technicians in clinical chemistry and clinical microscopy.

- d. Interpretation of electrocardiograms.

- e. Support of the Gerrish Memorial Library at the Central Maine General Hospital which enables it to send books and journals regularly to the affiliated hospitals and on request to any physician in the State of Maine.

- f. Courses in dietetics given at the New England Medical Center.

- g. Teaching ward rounds given at five of the hospitals during 1941.

- h. Postgraduate courses given in Boston in medicine, electrocardiography, ophthalmology, otolaryngology, surgery, and clinical chemistry for technicians. In all, thirty courses were given in fifteen subjects in 1941. The total enrollment for the year was 128. Bingham fellowships were given to fifty-one Maine physicians.

Pathology. The pathologists at the Eastern Maine General Hospital and the Central Maine General Hospital examine tissues removed at operation in all the twenty-six hospitals in their regional districts. Many specimens presenting unusual features or difficulties in diagnosis are referred to Dr. H. E. MacMahon, professor of pathology at Tufts Medical School. During 1941, he examined at least one thousand slides referred to him from the Central Maine General Hospital, and one hundred and seventy-five from the Eastern Maine General Hospital. In addition, Dr. MacMahon studied microscopic specimens from thirty autopsies sent him from the Lewiston Hospital. He holds frequent seminars which are attended by the Maine pathologists. It is thus seen that every physician referring patients to any one of the twenty-six affiliated Maine hospitals has the benefit of the services of expert pathologists.

Roentgenology. Dr. Forrest B. Ames, the roentgenologist of the Eastern Maine General Hospital, holds frequent X-ray conferences which are regularly attended by the physicians who do the X-ray work in the small hospitals of that region. During the year 1941, over 6,000 films were examined and in addition he made 38 visits to the affi-

liated hospitals. Dr. Roland Clapp of the Central Maine General Hospital visits regularly all the affiliated hospitals in the Lewiston district and makes fluoroscopic examinations in selected cases. In 1941 he held 2,808 X-ray consultations in this group of hospitals. Both roentgenologists are enabled by Bingham Fund fellowships to attend the weekly X-ray conferences at the Massachusetts General Hospital.

Training of technicians. Dr. Julius Gottlieb, pathologist at the Central Maine General Hospital, has a flourishing school for the training of medical technicians which provides the affiliated hospitals workers sufficiently skilled in clinical pathology and chemistry to make trustworthy reports to the hospital physicians. The technicians return each year for one month's additional instruction at the Pratt Diagnostic Hospital. They do this with the aid of Bingham scholarships. An itinerant technician is provided to substitute for the technician who is taking the course. "Last year, the head of our Chemistry Laboratory at the Pratt Hospital, Mr. Joseph Benotti, inspected the laboratories in the hospitals at Portland, Lewiston, Brunswick, Bath, Augusta, Bangor, Skowhegan, and Waterville, and gave advice and instruction to the technicians on the utilization and care of equipment and made suggestions for improvements. It was not primarily a teaching tour, but a good deal of informal teaching was done, and in Bangor a lecture for technicians was given." Proger.

Library Aid. The Gerrish Memorial Library at Lewiston receives 125 journals which it distributes to regional hospitals in the Lewiston district. Each community hospital receives from the library five medical journals where they remain prominently displayed for four days, after which they are forwarded to another hospital of the group and new ones are received. The plan has received enthusiastic coöperation among the participating hospitals, and many libraries may well envy the record of not one journal lost during the year, although most of the journals have been consulted by many staff doctors. In the course of a month, each hos-

pital receives thirty-five medical journals. During a whole year, the number of books and journals loaned by this library service has increased from 3,810 in 1940 to 7,735 in 1941. The library had a large collection of reprints of recent important papers and supplies bibliographical material to any Maine physician who wishes to review the literature with reference to any special case or to prepare a paper for presentation at a medical society or for publication. This service is rendered promptly. One day while staying at Bethel, I was asked to see a case at the Rumford Hospital of suspected lupus erythematosus disseminata. Being unfamiliar with this rather rare disease, I telephoned the librarian at Lewiston for recent literature and the evening of the same day, received half a dozen books and journals containing articles dealing with it. The Gerrish Library has an institutional membership in the Boston Medical Library and is able to obtain the loan of books and journals from its great collections.

Electrocardiography. Nearly all the hospitals have electrocardiographs and during 1941 no less than 357 electrocardiograms were submitted to the cardiologists, Dr. W. J. Comeau of Bangor and Dr. L. W. Steele of Lewiston, for interpretation. Dr. Comeau held 20 electrocardiographic conferences in Bangor following the regular X-ray conferences. Dr. Steele held 110 consultations with doctors in the Lewiston region. They in turn send about a dozen unusual tracings to Dr. Proger in Boston. If they present puzzling features, he consults with Dr. P. D. White, Dr. S. A. Levine, or other experts. Thus any patient with heart disease in any of the affiliated hospitals has this diagnostic service which is helpful to the patient and instructive to his doctor.

Details regarding the various courses given at the New England Medical Center and the Diagnostic Hospital will be found in Dr. Proger's papers. For these courses, Bingham fellowships have been available to Maine physicians. They have served to establish cordial relations between the doctors who attended them and the members of our staff. The instruction is largely in the form of

clinical lectures and demonstrations. As Dr. F. T. Hill truly observes that of necessity "this type of education is a form of spoon feeding. It's all right as a starter—as an incentive, but does not compare with the best type of education which is self-education."

The work of the Diagnostic Hospital however aids the self-education of the referring doctor. To it puzzling cases are sent for diagnosis and suggestions for treatment. A diagnostic ward in the New England Medical Center was equipped by the Bingham Associates Fund in the fall of 1931 and this service has steadily grown since then. A hospital for diagnosis evidently filled a real need and doctors in increasing numbers availed themselves of the opportunities it offered. The patients were returned in a few days to the doctors who had referred them and the treatment was left in their hands. The physician-patient relationship was strengthened, not weakened, by the stay in the diagnostic hospital. More and more patients were referred for diagnosis and in the course of a few years the accommodations were overtaxed and it was necessary to place at times even acutely ill patients on a waiting list. This was disturbing and tended to limit the usefulness of the services rendered. This difficulty was overcome when in 1937 Mr. Bingham gave funds for a splendidly designed and equipped hospital, so planned as to provide eventually for 100 beds. This hospital, of which Mr. Bingham was sole donor, cost nearly three-quarters of a million dollars and should have been named for him. But with self-effacing modesty that is characteristic, he would not allow it to be called the William Bingham Diagnostic Hospital, which was the wish of all, but insisted instead that it bear my name. This hospital with complete laboratories and every facility for diagnosis was opened in December, 1938. It is a unit of the New England Medical Center. Over 1,000 physicians have referred cases since the diagnostic hospital was opened three and a half years ago. The average stay of patients in the hospital is only 4 or 5 days. They then return to their home. The referring doctor is furnished a detailed report of the results of the examinations. Abstracts of current literature dealing with the disease with

which the patient is afflicted are also sent to the physician. These abstracts are prepared with especial reference to methods of diagnosis and treatment. Over 150 of these recently prepared abstracts are on file. Each abstract gives references to selected articles as a help and encouragement to the physician to study the subject further.

The Bulletin of the New England Medical Center contains summaries of lectures and papers presented at the daily conferences in the Diagnostic Hospital by leading Boston physicians as well as members of our staff. It also contains clinical reports and short articles on diagnosis and treatment. This publication has a circulation of about 5,000 copies. It is sent to all physicians who take graduate courses at Tufts or refer patients to the hospital.

In the early part of this paper the importance of the small hospital in the education of the staff as well as in the care of the patient was emphasized. The facilities now available in small Maine hospitals are excellent. One thing is lacking and that is good medical records. The roentgenologist, the pathologist, and the electrocardiographer, and the technicians in the laboratory all write adequate reports, but the same cannot be said of the physicians whose bedside examinations are the most important of all. Too much importance is attached to laboratory and X-ray aids to diagnosis. A good history and physical examination excel them in value. Friedrich Müller, one of the greatest physicians of modern times and a pioneer in clinical chemistry, told the truth when he said a physician's percussion finger was worth more than a whole chemical laboratory. I am told that some of the hospitals with whom the Bingham Associates are affiliated have only nurses' notes, in lieu of proper clinical records. If true, this is a most serious defect and one that should be corrected without delay. In the June number of the JOURNAL OF THE MAINE MEDICAL ASSOCIATION, the leading article deals with this timely topic. The author is Miss Pearl R. Fisher, superintendent of the Thayer Hospital in Waterville. It is entitled: "Records: The Problem of Every Hospital." A more apt title, she says, would be "The Headache of Every Hos-

pital." She points out that this ailment exists to some degree in all hospitals and the cure lies in the development of a record-conscious staff, and adds that the utilization of hospital records for teaching purposes by the staff has an "amazing therapeutic effect." The paper contains much of value.

How can this pressing problem be solved? In the first place its solution would be hastened if trustees of every hospital should require a signed pledge of all physicians before receiving an appointment to the staff to keep the medical records of their patients up to the minimum standards established twenty-four years ago by the American College of Surgeons. A medical records committee should be appointed and it should be the duty of the chief of staff to see that this committee is active and efficient. It should review all records regularly, preferably weekly, and promptly refer back unapproved records to the responsible physician. MacEachern says the practice is increasing of having the attending physician sign a statement reading as follows: "This is to certify that I have carefully reviewed the attached record, Hospital No. —, and to the best of my knowledge, I find it accurate and complete."

In order to obtain the enthusiastic coöperation of the staff in this important matter, medical records must be used. If they are filed away uncorrected and never consulted, it is easy to realize that the staff physicians have some reason to regard the labor of preparing them as largely a waste of time. The staff meeting is the place where the records can best be utilized. These meetings if properly planned can be most instructive as good records have great teaching value and invite comment and discussion. Dr. F. T. Hill insists that staff meetings should be held weekly throughout the year if the mental activity of the staff is to be maintained at a high level. We all learn more from our failures than from our successes. At the staff meetings, errors should be pointed out tactfully. A few years ago, I attended a staff meeting at a small hospital not many miles from Boston. One of the staff members reported a fatal case. It had been inadequately studied and the physician in his discussion made statements regarding diagnosis and treatment that

any good fourth-year medical student would have known to be false. He sat down and no one corrected his glaring errors. Afterwards, I asked one of the staff if silence meant assent. He replied, "Of course we know better, but the speaker is sensitive and we didn't wish to hurt his feelings." If such an attitude of mind prevails, the staff meeting will have no educational value. In fact it will promulgate error instead of truth. Unless mistakes in records are corrected by an impersonal appraisal, such an occurrence at staff meetings as the one I have related cannot be uncommon.

The auditing of the medical work seems to be the best method of improving both the clinical knowledge of the staff and the quality of the medical records. As an example of its life-saving value, Dr. Howard M. Clute cites his experience at the Massachusetts Memorial Hospital where the mortality in gall-bladder surgery has fallen in the "last few years from 8% to 5% to 2% and last year to 0%." The high mortality revealed by the audit aroused the staff to the need of better work. Every case was discussed by several of the staff before operation and special measures were adopted for the pre- and post-operative care. Although the general staff continued to do the surgery, one man was given the responsibility of following the cases and reporting the complications and failures. The brilliant success achieved was due to the willingness of the staff to have mistakes of each member revealed.

Miss Fisher states that at the Thayer Hospital, Waterville, the staff audit has proven to be the best means of solving the record problem as the amount of information revealed by the audit has made each staff member realize the practical value of good records. Once a week the completed records are reviewed by the auditor, the chairman of the staff, and the record committee. Each staff member in rotation acts as auditor for one month. When any errors or omissions are discovered a confidential note is given to the responsible physician, suggesting corrections. The record is classed as unfinished until corrected. Experience shows no one wants his records reported as incomplete. Once a month a consolidated report is presented at a staff

meeting for discussion. During the year and a half that the audit system has been used at the Thayer Hospital, it has "brought to light a wealth of informative, interesting material" and has improved greatly the quality of the medical records.

In a recent paper, I attempted to make a historical survey of hospital records and pointed out with a pride all of us can share that the first hospital established in New England, the Massachusetts General Hospital, had good medical records beginning with the first patient admitted in September, 1821. Furthermore, the records were not stored away unused. The excellent studies of James Jackson and Enoch Hale on typhoid fever were based on the analysis of these clinical records and the careful tabulation of the facts recorded in them. To observe thoroughly, to record accurately, and to analyze carefully will always be necessary if hospital patients are to receive the best of care and if medicine is to continue to advance.

When the Bingham Associates began its work eleven years ago, I had the mistaken idea that if small hospitals were assisted by grants of money to secure the services of a record clerk and typist or provided with a dictaphone, the staff physicians would be thereby stimulated to do their part in preparing good records. The plan failed and I believe it will always fail until the physicians become record-conscious. The Thayer Hospital found a better way. Who can believe that the audit system which works so well there will not be found equally successful in the other small hospitals not only in Maine but throughout the country as the need for better records exists everywhere?

This in brief is a record of what the Bingham Associates Fund has accomplished, in carrying out the work Mr. Bingham initiated and has supported so generously. The physicians of Maine have shown their appreciation of his efforts by building up a coöperative organization of twenty-six independent hos-

pitals within the state which makes the facilities of all available for each, and which provides in increasing measure for the self-education of every doctor connected with them.

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In tuberculosis I suggest that we are in this and in other countries, underarmed for the defense of the healthy as well as for the

defense of the sick.—J. B. McDougall, M. D., *Bull. de l'Union, Inter. Contre Tuberc.*, July, 1939.

A Simple Efficient Splint for First Aid Care of the Injured Arm or Leg

By ARTHUR H. PARCHER, M. D., Ellsworth, Maine

If a Thomas, Keller-Blake or similar splint is not available, a board serves as a good splint.

The splint described below is a board splint but modified so as to permit its application in various positions to the arm or leg.

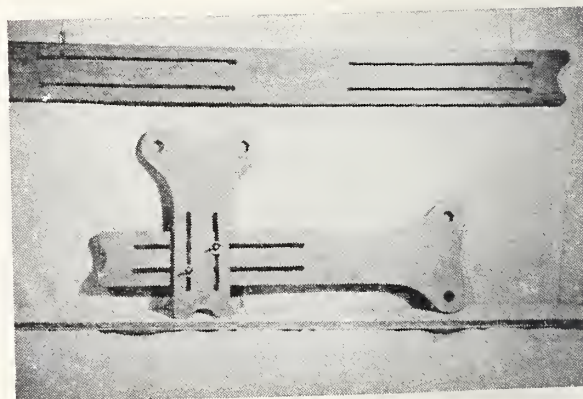
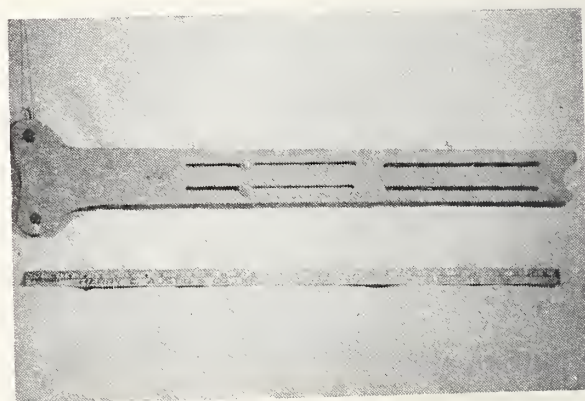
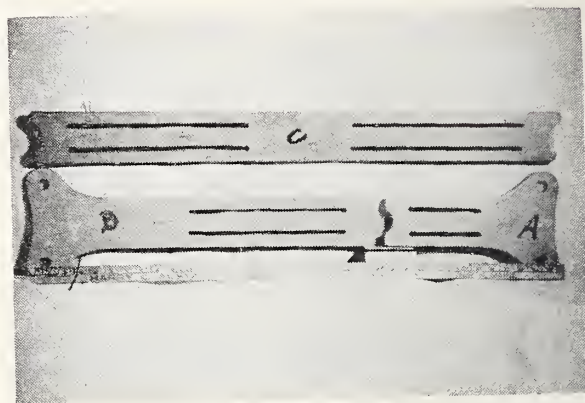
The splint suggested is made of $\frac{3}{8}$ inch plywood, $3\frac{1}{2}$ inches wide, with an expanded head end. The combined splint, which will fit either arm or leg, consists of three sections: sections A, B, and C; 12, 24, and 36 inches in length, respectively. Sections A and B form an arm splint. Sections B and C form a leg splint.

The splint has double slots and bolts with wing nuts as a means for adjusting it quickly and firmly to different lengths and angles. The broad headed end acts as a means of fixation; as a spreader for a traction sling; to prevent rotation of the extremity and for patient contact.

It may be applied either to the outer or the inner side of the leg, and reversed for injuries about the ankle joint. When fixed traction is indicated, the outer splint is preferable and may be extended to reach well above the hip and below the foot.

Section B alone makes a good inner arm splint, and sections A and B form an arm splint that is easily adjusted for length and also for any desired angle at the elbow.

To stabilize the splint fixation bands from holes in the head end cross over the shoulder and are tied under the opposite shoulder.



The President's Page

To the Members of the Maine Medical Association:

At a meeting of the Council and Scientific Committee of the Maine Medical Association held at Waterville, Sunday, October 25th, 1942, it was voted that the 1943 meeting of the Association be a business meeting of one day to be held on Sunday, June 20th, at the Augusta House, Augusta, Maine. This meeting will consist of a Council meeting and the First Meeting of the House of Delegates in the morning, and the Second Meeting of the House of Delegates in the afternoon, with dinner at noon featuring one speaker.

This decision followed considerable discussion by Council and Scientific Committee members, as well as by the Councilors in session at Belfast on July 26, 1942, at which time it was voted to postpone decision regarding the 1943 session until the October meeting of the Council.

The Councilors emphasized the importance of County Delegates, stressing the fact that these delegates MUST be chosen with care in-as-much as they are representing the County Societies in the House of Delegates; the legislative body of your Association.

The election of Officers was discussed at length and the Council expressed an opinion that the present officers should continue in office for the duration.

This will be only one of many important questions which will confront the 1943 meeting of the House of Delegates. I do, therefore, urge the County Societies to elect delegates who will attend this meeting and take an active part therein.

All members of the Association, who are not delegates, are also urged to attend this meeting.

Lieut. Col. Stephen A. Cobb, M. C., President-elect of the Maine Medical Association, and Major Norman H. Nickerson, M. C., Councilor, Sixth District, were unable to be present at this meeting because both are in active service with the United States Army.

A letter which I have recently received from Lieut. Col. Cobb, follows in part:

Oct. 11, 1942
67th General Hospital

"Dear Carl:

As you know the 67th General Hospital sponsored by the Maine General Hospital, and composed of Maine doctors is attached to the Station Hospital here at Fort Bliss for instruction and intensive training. At the present time we have working at the Station Hospital, members of our unit, and sixty-six nurses from New England, most of them from Maine.

We are all well and happy. Many of the Officers have their wives with them so that we have many pleasant get-togethers. Lieut. Col. Moore (Roland D.) makes a great Commanding Officer and has the respect and admiration of all the men. Our enlisted personnel is made up of men mostly from the southwest. There are about five hundred of them. They are a fine lot of boys and soldiers. They had three months' training before we arrived.

El Paso really is a beautiful spot. Fort Bliss is situated on the United States side of the Rio Grande River, and at the base of the Rocky Mountains, with some of the camps on the slopes. The sun has shone every day that we have been here. When it rains it is generally in the night. This is probably due to the fact that we are at 4,000 feet elevation. The days are warm and the nights cool. We are still in khaki, and our shirt sleeves. The people of El Paso have really been more than hospitable. The Chamber of Commerce, Service Clubs, and Religious Organizations are continually having entertainments for everyone in the service. We are across the river from Juarez in old Mexico, a favorite retreat for the service men.

This is our daily schedule:

6.00 A.M.	Reveille	12.00-13.00	Lunch
6.45- 7.00	Calisthenics	13.00-16.30	Work on the wards
7.00- 7.30	Breakfast	17.00-18.00	Dinner
7.30- 8.30	Close Order Drill	18.00-19.00	Lectures (Note the army time)
8.30-12.00	Work in operating room and on the wards	19.00-22.00	Free to write letters, play cards, or go to the movies
		22.00	Taps

From Saturday noon until Monday at 6.00 A. M., those who are not on duty are free. There have been trips to the Carlsbad Caverns, and up and down the Rio Grande Valley. These in addition to being enjoyable are very instructive and educational.

I do want to say that we have as finely trained doctors in our unit (and all from the State of Maine) as there are in the Army. I am sure that wherever we go our bunch will not shirk and that some day when this holocaust is over the 67th General Hospital will have been a credit to the Army of the United States and the State of Maine.

Sorry I will not be able to be with you at the Council Meeting of the Association. Give my greetings to all the members.

Kindest regards,
(signed) Steve."

Major Nickerson, in a letter to your Secretary, Doctor Carter, also expressed regret at not being able to attend the Council Meeting.

CARL H. STEVENS, M. D.,
President, Maine Medical Association.

Editorials

Maine Medical Association Annual Session — 1943

The House of Delegates of the Maine Medical Association in session on June 22, 1942, at Poland Spring, voted that the decision relative to whether or not we have a 1943 annual session be left in the hands of the Council.* As you will note in the President's Page, published in this issue, the Council on Sunday, October 25th, voted that a one-day business meeting be held in 1943 instead of the regular meeting of the Association.

This is the first time an annual meeting has been cancelled in the history of the Maine Medical Association, which met and organized at the Tontine Hotel, Brunswick, April 25, 1853, and held the First Annual Meeting in Winthrop Hall, Augusta, on June 1, 1853.

The work of the Association must, however, be carried on and it is with this in mind that the Council has voted to hold a one-day business meeting on Sunday, June 20, 1943, at the Augusta House, Augusta, Maine, in order that the House of Delegates composed of delegates elected by the component county societies, and the officers of the Association, may meet and keep the affairs of the Association in order.

Members who are not delegates are also invited to attend this meeting, your opinions will be welcome, and given consideration by the members of the House of Delegates.

*Proceedings — 90th Annual Session — Page 262.

Office of War Information War Manpower Commission

"The Directing Board of the Procurement and Assignment Service is pleased to announce that 95 percent of the 1942 procurement objective of medical officers for the armed forces has already been met. Toward this total a number of States have supplied more than their share of physicians and only a few States are lagging behind in their quotas. It is from these States that the additional physicians needed during the current year should come.

1943 A. M. A. Meeting Cancelled

Announcement was made on September 17th that the American Medical Association has decided to cancel its ninety-fourth annual meeting next year in order to keep at their practice the small force of physicians that will be left by that time to care for the civilian population.

The cancellation of the meeting, which was scheduled to be held in San Francisco, marks the first time since the Civil War that the A. M. A. has postponed an annual session.

In place of the annual meeting, the A. M. A. House of Delegates, Board of Trustees, Scientific Councils, and officers will meet in Chicago next June to deal with the necessary business of the Association and war-time problems of the medical profession.

Attention!

We call your attention to the articles which follow: the first from the Directing Board of the Procurement and Assignment Service, and the second relative to Emergency Base Hospitals. We feel that information of this nature, which comes to us from time to time, is of interest and importance to each of our members and will, therefore, make it a policy to devote a portion of the editorial section of the JOURNAL to the publication of same.

"The recruitment of such a large number of physicians in a few months is a remarkable achievement and another demonstration of the traditional patriotism and unselfishness of the medical profession. In this achievement, and particularly in those of its members who are "in service," the profession can justifiably take pride.

"The end, of course, is not yet. Increases in the armed forces will necessitate more medical officers and additional demands will be made upon the profession for medical services in critical war production areas. The Directing Board is convinced, however, that

the physicians of this country will respond to future calls for service, whatever they may be, in the same splendid manner with which they have already volunteered for service with the armed forces."

Signed:

FRANK H. LAHEY, M. D.,
HAROLD S. DIEHL, M. D.,
HARVEY B. STONE, M. D.,
JAMES E. PAULLIN, M. D.,
C. WILLARD CAMALIER, D. D. S.,
Of the Directing Board.

Civilian Defense—Emergency Base Hospitals

The Medical Division of the U. S. Office of Civilian Defense, through its Regional Medical Officers and State Chiefs of Emergency Medical Service, has now made emergency provision for the establishment of a chain of Emergency Base Hospitals in the interior of all the coastal States. They will be activated only in the event of an enemy attack upon our coast which necessitates the evacuation of coastal hospitals. Each base hospital will be related to the casualty receiving hospital which has been evacuated and it is expected that the staff will be recruited largely from the parent institution.

In order to meet a sudden and unexpected crisis without delay, arrangements have been completed with State authorities for the prompt taking over of appropriate institu-

tions in the interior of the State for this purpose and with local military establishments for the transportation of casualties and other hospitalized persons along appropriate lines of evacuation.

More than 150 hospitals in the coastal cities are in the process of organizing small affiliated units of physicians and surgeons, which will be prepared to staff the Emergency Base Hospitals if they should be needed. These units are composed of the older members of the staff and those with physical disabilities which render them ineligible for military service, and of women physicians. In order that a balanced professional team may be immediately available the doctors comprising units are being commissioned in the inactive Reserve of the U. S. Public Health Service so that, if called to duty, they may receive the rank, pay and allowances equivalent to that of an officer in the armed forces.

Dr. George Bachr, Chief Medical Officer of the U. S. Office of Civilian Defense, states that the members of these affiliated hospital units will continue to remain on an inactive status for the duration of the war, unless a serious enemy attack occurs in their Region which necessitates the transfer of casualties to protected sites in the interior. Their commissions may be terminated upon their request six months after the end of the war, or sooner if approved by the Surgeon General. Such approval will be given in the event such officer desires active duty in the Army or Navy.

Maternal and Child Welfare Prenatal Care

(Continued from the October, 1942, Issue of the JOURNAL, Page 234)

The necessity for increased care in the last three months of pregnancy makes it imperative that the physician demand that the patient keep in close touch with him. He should tell her the main symptoms to watch for and report so that she will not think they are part of the normal discomforts.

If the patient is at a distance and cannot call, the physician should be doubly careful in his instructions and should insist that specimens of urine be sent at intervals of three weeks at the most. It is here that the visiting nurse will prove very valuable. She

can take the blood pressure and inquire for symptoms of trouble.

Every effort should be made in the last weeks of pregnancy to induce the prospective mother to nurse her baby. Physicians have no need to be told the advantages of breast feeding but far too many women believe that bottle feeding is just as good and much easier. It requires active interest on the part of the doctor to combat this belief and the tendency of mothers to give up too easily. A large factor in the premature abandonment of breast feeding is the determination of nurses and superintendents of small hospitals that the newborn shall gain rapidly. If they could be induced to take pride in turning out breast fed babies instead of babies heavier by a few ounces than when they were born, much good would result. This change can be brought about by the concerted action of the physicians of the locality. We have altogether too few breast fed infants.

In the last months the tub bath is omitted, but sponge and shower baths should be encouraged. Intercourse is not permitted. At this time the hospital arrangements are verified, and the patient told what to do and whom to call when labor starts. She should also be told the symptoms of labor and what to expect. Many intelligent women have no knowledge of these matters and the advice of friends is usually bad. Much panic and trouble will be averted if the gravida understands that the first pain is not an instant emergency.

The question of analgesia and anaesthesia should be discussed with the patient. This is not an article on obstetric analgesia but we do feel that the physician should not allow himself to be induced by competition to overdo the drugging of patients. There is as yet no safe method of procuring a painless labor. If it is explained to the mother that the baby gets the drug also, she is likely to be less demanding. It is proper, however, to assure her that she will not be made to "tough it out."

After six months or more of association such as that outlined above mother and doctor can face the climax of labor with confidence based on mutual understanding. This state of mind is well worth the moderate amount

of extra time and effort required to establish it.

Experience in one county of this state has shown that the relationship between doctor and maternity patient outlined above can be attained. This county has the best maternal and neonatal record in the state in spite of the fact that it is largely rural. The physicians here determined that care of mothers and newborns should improve. They did missionary work, talking about the advantages of prenatal care. They caused word to get around that they would not attend in labor a patient not before seen. Actually, of course, no woman was refused but the community was made to think.

This missionary work was taken up by neighborhood groups of women. They began to insist on prenatal care for themselves and their friends. If one of their neighbors was not bothering to have proper care, they would scold her and tell her that if she did not go to the doctor now, he would not come to her when she wanted him.

Then, having persuaded the community to seek prenatal care, these men saw that it was properly given. The work paid big dividends in health, to say nothing of the doctors' enhanced reputations. This result can be obtained anywhere that physicians will show interest.

Prenatal clinics are deserving of more support than the physicians of Maine give. There are now only three in the state, in Portland, Lewiston, and Bangor. Your committee feels that more should be established, especially in communities to which there has been an influx of people. Small hospitals or community centers can be utilized. The public health nurses are anxious to help, and there is always someone who has had hospital experience to act as clerk.

It should be recognized that a well run clinic is not in competition with local physicians because it accepts only those who are unable to pay a fee. As the time of delivery approaches, the record is sent to the patient's physician. He would, of course, be notified at once if abnormalities were discovered. Thus the doctor is forewarned and can pre-

COUNTY SOCIETIES

Androscoggin

President, Camp C. Thomas, M. D., Lewiston
Secretary, Charles W. Steele, M. D., Lewiston

Aroostook

President, Thomas G. Harvey, M. D., Mars Hill
Secretary, Clyde I. Swett, M. D., Island Falls

Cumberland

President, Roland B. Moore, M. D., Portland
Secretary, Eugene E. O'Donnell, M. D., Portland

Franklin

President, James W. Reed, M. D., Farmington
Secretary, George L. Pratt, M. D., Farmington

Hancock

President, Ralph W. Wakefield, M. D., Bar Harbor
Secretary, M. A. Torrey, M. D., Ellsworth

Kennebec

President, L. Armand Guite, M. D., Waterville
Secretary, Frederick R. Carter, M. D., Augusta

Knox

President, James Carswell, M. D., Camden
Secretary, A. J. Fuller, M. D., Pemaquid

Lincoln-Sagadahoc

President, Edwin M. Fuller, Jr., M. D., Bath
Secretary, Jacob Smith, M. D., Bath

Oxford

President, Lester Adams, M. D., Greenwood Mt.
Secretary, J. S. Sturtevant, M. D., Dixfield

Penobscot

President, Albert W. Fellows, M. D., Bangor
Secretary, Forrest B. Ames, M. D., Bangor

Piscataquis

President, Albert M. Cardy, M. D., Milo
Secretary, Harvey C. Bundy, M. D., Milo

Somerset

President, Allan J. Stinchfield, M. D., Skowhegan
Secretary, M. E. Lord, M. D., Skowhegan

Waldo

President, Lester R. Nesbitt, M. D., Bucksport
Secretary, R. L. Torrey, M. D., Searsport

Washington

President, Perley J. Mundie, M. D., Calais
Secretary, James C. Bates, M. D., Eastport

York

President, Carl E. Richards, M. D., Alfred
Secretary, C. W. Kinghorn, M. D., Kittery

County News and Notes

Knox

The regular meeting of the Knox County Medical Society was held at the Copper Kettle, Rockland, Maine, on September 8, 1942, with Samuel Lewis, M. D., of Boston as guest speaker.

Doctor Lewis is a neuro-surgeon, and spoke on the acute low back conditions, stressing the fact that all of the acute low back conditions look alike at first, and that until the muscular spasm is reduced no definite diagnosis can be made. The best way to accomplish this is to have the patient lie flat on his back with boards under the mattress and apply heat to the painful area. Operations and treatments were outlined. Special braces were mentioned, special operations were described, and the prognosis of untreated and treated cases compared.

It was a very interesting talk, and much enjoyed by those present.

A. J. FULLER, M. D.,
Secretary.

Oxford

The annual meeting of the Oxford County Medical Society was held at Rumford, Maine, on Friday, October 9, 1942.

The afternoon session was held at the Rumford Community Hospital at 3.30 P. M., at which time a Surgical Clinic was conducted by Howard M. Clute, M. D., Chief Surgeon, Massachusetts Memorial Hospital, Boston. A number of gall bladder cases were presented and discussed.

At 5.00 P. M., a business meeting was called to order by the President, Albert P. Royal, M. D., of Rumford. Reports of the previous meeting, and of the Secretary and Treasurer were presented and accepted. An application for membership was received and referred to the Councilors.

The following Officers were elected for the ensuing year:

President, Lester Adams, M. D., Greenwood Mountain.

Vice President, Fred L. Smalley, M. D., Bryant Pond.

Secretary-Treasurer, J. S. Sturtevant, M. D., Dixfield.

Councilors: Drs. R. R. Tibbetts, J. A. Green and J. A. MacDougall.

Delegate to the Maine Medical Association Annual Session, Harold W. Stanwood, M. D., Rumford.

Alternate, Garfield G. Defoe, M. D., Dixfield.

The evening session was held at the Hotel Harris. After dinner Doctor Clute gave an excellent lecture on *The Problems of Acute Cholecystitis* with X-ray pictures.

Twenty members and two guests were at the business meeting, and thirty-two physicians and ladies attended the dinner.

J. S. STURTEVANT, M. D.,
Secretary.

Penobscot

The regular meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday, October 20th, 1942.

Following a brief business meeting, two Medical Officers from the Dow Field were the speakers.

Lieutenant Mason Trowbridge spoke on the subject *Venereal Disease Control in the Army*, and Lieutenant John Kennard reported on *Reports of Surgery at Pearl Harbor*, as presented by Colonel Moorhead at a meeting in Boston, October 19th.

There were forty in attendance.

FORREST B. AMES, M. D.,
Secretary.

York

The fall meeting of the York County Medical Association was held at the Henrietta Goodall Hospital, Sanford, Maine, October 14, 1942. An excellent turkey dinner was served at 1.00 P. M., and the business meeting followed at 2.00 P. M.

A committee composed of Drs. Edward M. Cook, James H. MacDonald, and Owen B. Head, was appointed to make a study of the advisability of continuing meetings for the duration.

It was voted to have the annual meeting at the York Hospital, York Village, Maine, with Drs. Cook, and Pliny A. Allen, in charge.

Following the meeting Lt. Comdr. S. N. Gardner (M. C.), U. S. N., of the Navy Yard in Kittery, gave an interesting talk on *Diabetes*.

Other guests from the Navy Yard were Drs. Angel and Gray.

There were sixteen members and three guests present.

C. W. KINGHORN, M. D.,
Secretary.

Members in Military Service

In keeping with our policy to have a complete record of Maine doctors in the various branches of the Service, we herewith give second supplement to the list in the September, 1942, issue. Names are given by Counties, alphabetically with home addresses as it is impossible to keep up with the changes in the rank and service. We will appreciate having any reader advise us of names that have been omitted.

Androscoggin

Bousquet, Jean, Lewiston

Cumberland

Branson, Sidney R., South Windham
Lovelace, Daniel, Gorham

Franklin

Springer, Frank L., Farmington

Hancock

Coffin, Ernest L., Northeast Harbor
Coffin, Raymond B., Southwest Harbor
Coffin, Silas A., Bar Harbor

Kennebec

Bourassa, Harvey J., Waterville
Cyr, Gerald A., Waterville
Fay, Thomas F., Augusta
Murphy, Norman B., Augusta

Knox

Earle, Ralph P., Vinalhaven
Jones, Paul A., Union

Lincoln-Sagadahoc

Winchenbach, Francis A., Bath

Oxford

Eastman, Charles W., Livermore Falls
Howard, Henry M., Rumford

Somerset

Bernard, Albert J., Skowhegan

Necrologies

Adelbert Beeman Allen, M. D.,

1879-1942

Adelbert Beeman Allen, M. D., 63, died suddenly at his home in Richmond, Maine, on October 8, 1942. He had been in poor health for several years and had recently been a patient in a Lewiston hospital.

Doctor Allen was graduated from the University of Vermont Medical School in 1904. He was physician at Sing Sing prison for fifteen years, and practiced several years in New York City, and in Waterville, Corinna, and Richmond, Maine.

He was a member of the American Medical Association, Maine Medical Association, Kennebec County Medical Society, and of the Episcopal Church, Richmond Lodge, I. O. O. F., and the Masonic bodies in Waterville.

Three generations in his family have been doctors, as his father was a physician and his son, Joel Allen, is now a physician with the United States Army.

Doctor Allen is survived by his wife, Delevan Ann Allen; his son, and a daughter, Mrs. Winfred Dodge of Burlington, Vermont.

Herbert Huestis Best, M. D.,

1871-1942

Herbert Huestis Best, M. D., 71, who died August 20, 1942, at the summer home of his daughter, Mrs. Ralph Salter, near Coboconk, Ontario, was one of the finest representatives of the country doctor with a widespread general practice.

Doctor Best was born in 1871, in King's County, Annapolis Valley, Nova Scotia. He was a direct descendent of Major William Best, one of the founders of Halifax. He attended the Berwick School, Sackville Academy, Dalhousie University, Halifax, and received his medical degree from the University of New York Medical School in 1896.

He practiced in West Pembroke, with short periods in Eastport and Easton, for forty-six years. An exceptionally able diagnostician who gave himself without reserve to the care of his patients, he established a wonderful record, particularly in the care of obstetrical cases and in the treatment of fractures.

Doctor Best was a member of the American Medical Association, Maine Medical Association, Washington County Medical Society, and of the Crescent Lodge of Masons.

While in New York, he married Lulu Fisher, also of King's County, Nova Scotia, who died August 19, 1940.

Doctor Best is survived by his daughter, Mrs. W. R. Salter, wife of W. R. Salter, K. C., of Toronto, and by his son, Surgeon Lieutenant-Commander C. H. Best, director of Banting and Best Department of Medical Research, University of Toronto, and co-discoverer of insulin with the late Major Sir Frederick Banting.

Book Reviews

"Abdominal and Genito-Urinary Injuries"

Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council.

Published by W. B. Saunders Company, Philadelphia and London, 1942. Price, \$3.00.

As stated in the Introduction, "This volume is one of a series developed under the auspices of the Division of Medical Sciences of the National Research Council to furnish the medical departments of the United States Army and Navy with compact presentations of necessary information in the field of military surgery" and covers quite thoroughly the subjects of abdominal injuries and genito-urinary injuries. There are eleven chapters devoted to the injuries of the abdomen and six chapters on injuries of the genito-urinary tract, the last chapter entitled "Do's and Don'ts" which contains much valuable information in a concise text.

While this book is of special interest to the man doing military surgery, it is a volume which every physician should possess.

"Immunology"

By: Noble Pierce Sherwood, Ph. D., M. D., F. A. C. P.; Professor of Bacteriology, University of Kansas and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas.

Second Edition.

Illustrated.

Published by The C. V. Mosby Company, St. Louis, 1941. Price, \$6.50.

The author has tried to include in this, his second edition, the most important features of the knowledge acquired during the last six years, the time elapsed since the publication of the first edition. Some of the material was rearranged for the convenience of the student. The chapter on the chemistry of colloids appears as an appendix in order to facilitate the students' needs. The chapter on serology of syphilis has been revised so as to conform to the requirements of the "Committee on the Need of Adherence to Conventional Technique in the Performance of Reliable Serologic Tests for Syphilis."

For Sale or Lease

Well located Doctor's residence, thoroughly modern, with office suite attached, in West Pembroke, Maine, where extensive medical practice carried on for past forty years. No other Doctor in town. Address inquiries to:

Dr. C. H. Best,
Banting & Best Department of
Medical Research,
University of Toronto,
Toronto, Canada.

Maternal and Child Welfare—Continued from page 254

pare himself or send the woman to a properly equipped hospital. Many an emergency would not have arisen if the physician had been able to obtain previous knowledge of the condition. It is quite possible that in some instances doctors will wish to send to a well-conducted clinic patients who are not strictly free cases. The clinic would accept these women on written request from the referring physician, who would thus be relieved of a burden and, at the same time, assured that his patient was being adequately cared for.

Unfortunately, the mere mention of the word "clinic" conjures up in some the vision of state medicine. The best way to avoid state medicine is to do the work ourselves.

That is what the government wishes and government agencies will help us to do it. If we fail, what a wonderful talking point is given to the demagogue. "Mothers and children are not getting good care. Elect me and I'll see that they do." Then we shall see not state medicine but political medicine and it will be our own fault.

Your committee again urges individuals and county societies to devote thought and effort to maternal and child welfare. Our record is none too good. We are well down in the list. Let's do something about it.

YOUR COMMITTEE ON MATERNAL
AND CHILD WELFARE.

Proceedings
NINETIETH ANNUAL SESSION
Maine Medical Association
POLAND SPRING, MAINE
JUNE 21, 22, 23, 1942

CONTINUED FROM THE OCTOBER ISSUE OF THE JOURNAL, PAGE 242

SECOND MEETING OF THE HOUSE OF
 DELEGATES, JUNE 22, 1942

The second meeting of the House of Delegates of the Maine Medical Association convened at 5.40 o'clock in the afternoon, on June 22, 1942, at the Poland Spring House, Poland Spring, Maine, with Dr. Carl H. Stevens of Belfast, President-elect of the Maine Medical Association, presiding.

CHAIRMAN STEVENS: The meeting will please come to order. Our Secretary, Dr. Frederick R. Carter of Augusta, will give the roll call first.

(Secretary Carter then called the roll and the following delegates responded:)

Androscoggin:—Ralph A. Goodwin, M. D., Auburn; Merrill S. F. Greene, M. D., Lewiston. Alternates: Otis B. Tibbetts, M. D., Auburn; Albert W. Plummer, M. D., Lisbon Falls.

Aroostook:—Thomas G. Harvey, M. D., Mars Hill.

Cumberland:—Thomas A. Foster, M. D., Portland; Frank A. Smith, M. D., Westbrook; DeForest Weeks, M. D., Portland; Elton R. Blaisdell, M. D., Portland; Philip H. McCrum, M. D., Portland; Clyde E. Richardson, M. D., Brunswick; Richard S. Hawkes, M. D., Portland.

Franklin:—George L. Pratt, M. D., Farmington.

Kennebec:—Blynn O. Goodrich, M. D., Waterville.

Knox:—C. Harold Jameson, M. D., Rockland. Alternate: Abbott J. Fuller, M. D., Pemaquid.

Lincoln-Sagadahoc: — Virginia C. Hamilton, M. D., Bath.

Oxford:—Roswell E. Hubbard, M. D., Waterford.

Penobscot:—Ernest T. Young, M. D., Millinocket.

Piscataquis:—Harvey C. Bundy, M. D., Milo.

Somerset:—Allan J. Stinchfield, M. D., Skowhegan.

Waldo:—Raymond L. Torrey, M. D., Searsport.

York:—Edward M. Cook, M. D., York Harbor; Waldron L. Morse, M. D., Springvale. Alternates: Carl E. Richards, M. D., Alfred; Charles W. Kinghorn, M. D., Kittery.

CHAIRMAN STEVENS: The first order of business is the report of the Nominating Committee, by Dr. C. Harold Jameson of Rockland.

DR. C. HAROLD JAMESON: Mr. Chairman, last evening, the Nominating Committee met. The members of the Committee are: Frank A. Smith of Westbrook, Merrill S. F. Greene of Lewiston, C. Harold Jameson of Rockland, Raymond L. Torrey of Searsport, Raymond E. Weymouth of Bar Harbor and Harvey C. Bundy of Milo.

(Dr. Jameson read the report of the Nominating Committee as published in the July, 1942 issue of the JOURNAL, Page 168.)

CHAIRMAN STEVENS: You have heard the report of the Nominating Committee. What action do you wish to take?

DR. CARL E. RICHARDS of Alfred: I move the acceptance of the report of the Nominating Committee, and I also move that the Secretary cast one ballot for the election of the persons named in the report.

This motion was duly seconded by several of the members present and was carried.

CHAIRMAN STEVENS: Is the report of the Reference Committee ready, Dr. Foster?

DR. THOMAS A. FOSTER of Portland: Your Committee received two resolutions to consider, the first of which was discussed and adopted without much debate. I shall read this for your approval.

The Committee moved that the Council be instructed to appoint a Committee from the Maine Medical Association to follow out the suggestions made in the letter from Frank Mott, Administrator of the Estate of the late Amy Pinkham, to Frederick R. Carter, regarding the expenditure of \$20,000 left under the will of the late Amy W. Pinkham for the use of tuberculous or undernourished children in Maine.

This motion was approved and signed by Dr. George L. Pratt, Dr. Ernest T. Young and myself.

Therefore, Mr. Chairman, we move that this suggestion be adopted.

This motion was duly seconded by several of the members present, and was carried by a hand vote.

DR. THOMAS A. FOSTER: Mr. Chairman, the other motion seems to be controversial, and at the meeting, arguments were heard for and against the motion. First, I will read the motion, which was from the Council.

"It was moved by the Council that the Association express its opinion to the Governor and the Legislative bodies that the supervision of the distribution of milk in Maine should be under the Department of Health rather than under the Department of Agriculture."

Your Committee had a meeting this afternoon, attended by the head of our Department of Health and by Dr. Norman H. Nickerson and Dr. Clinton N. Peters, and the Committee, and they heard arguments in favor of the motion, and arguments against the motion.

Your Committee submits the following:

WHEREAS, the members of the Maine Medical Association recognize that many cases of tuberculosis and undulant fever are reported in Maine each year, and

WHEREAS, tuberculosis and undulant fever are contracted from drinking raw milk from infected cows, and

WHEREAS, cattle infected with tuberculosis and Bangs Disease can and should be detected and eradicated from the herds in Maine,

THEREFORE, BE IT RESOLVED, that this Association respectfully ask the Department of Agriculture, in

which Department the control of milk production and distribution rests, to pursue a vigorous campaign against these diseases in the herds of Maine, and

BE IT FURTHER RESOLVED, that the Association request the Department of Agriculture in coöperation with the Department of Health to inaugurate a campaign for education on the necessity of clean milk and the advantages of Pasteurization of milk.

This resolution is signed by George L. Pratt, Thomas A. Foster and Ernest T. Young.

The Committee moves the adoption of this substitute resolution.

This motion was duly seconded by several of the members present, and was carried, with two dissenting votes.

CHAIRMAN STEVENS: The next order of business is the election of Councilors. We have three to elect. Dr. Pratt, will you kindly give us the report for your District.

DR. GEORGE L. PRATT of Farmington: Currier C. Weymouth was elected Councilor from the Second District.

CHAIRMAN STEVENS: The next order of business is the election of a Councilor from the Third District, to fill the term of William A. Ellingwood, deceased. The Council, at a meeting held in Portland on October 16, 1941, elected C. Harold Jameson, M. D., of Rockland, to serve as Councilor until this Annual Meeting in June, 1942, when the Councilor for that District would be elected for two years to fill out the unexpired term.

Nominations for Councilor to the Third District are now in order.

DR. VIRGINIA C. HAMILTON of Bath: I would like to nominate Dr. C. Harold Jameson of Rockland.

This motion was duly seconded by Dr. Weymouth of Bar Harbor, and was carried.

DR. THOMAS A. FOSTER: The First District delegation met in the adjoining room and received the nominations of candidates for the office of Councilor; nominations were seconded, and a written Ballot was taken. The majority of the delegation present voted in favor of E. Eugene Holt of Portland, as Councilor for the First District.

CHAIRMAN STEVENS: The name of Dr. E. Eugene Holt has been placed in nomination as Councilor for the First District. What is your pleasure?

A MEMBER: I move that nominations be closed and that the Secretary cast one ballot for the election of Dr. Holt as Councilor from the First District.

This motion was duly seconded and was carried.

A MEMBER: I also move that the Secretary be instructed to cast one ballot for the elections of Dr. Currier C. Weymouth as Councilor from the Second District and Dr. C. Harold Jameson as Councilor from the Third District.

This motion was duly seconded and was carried.

SECRETARY CARTER: I have cast the ballots, electing these men as Councilors for the First, Second and Third Districts, respectively; Dr. E. Eugene Holt, Dr. C. C. Weymouth, and Dr. C. Harold Jameson.

CHAIRMAN STEVENS: The next order of business is that of unfinished business. We are awaiting the report of Dr. Neil A. Fogg of Rockland, as the Delegate to the 1942 Connecticut State Medical Society meeting. Dr. Fogg is not present.

Next, is the report of Standing and Special Committees not submitted for publication and not presented to the First Meeting of the House of Delegates on June 21, 1942.

First, is the report of the Committee on Medical Education and Hospitals by Dr. Adam P. Leighton of Portland.

DR. ADAM P. LEIGHTON: I have quite a lengthy report here, and if you desire I shall read only the highlights.

(It was requested that Dr. Leighton read the entire report, which follows:)

The general picture and outlook of, and for, Hospital service and medical practice in Maine is perplexing and serious indeed. With the Country at War and demands being made on the Medical Profession and the Hospitals such as have never been equalled before, this report is consequently lengthy and necessarily replete with observation and discussion of important matters having to do with these two activities.

Medical practice in the rural communities has for some years been decidedly depleted. The recent graduates have on the whole, refused to take up so-called "country practice." Many towns and villages which heretofore have had physicians now have none or are taken care of by the osteopaths. The Osteopathic Profession has literally "taken over" the majority of these places and since the lamentable error on the part of the Medical Profession and this Association, in allowing osteopaths added privileges of practice which truly approach the regular practice of medicine, the younger medical men have sidestepped the competition of the osteopaths and seem, more than ever, determined to enter practice in the various cities of the State. There is a slight diminution too, in the number of medical practitioners in this State. The Army and Navy will continue to take many more of the medical men into the service. Osteopaths are "in clover" in that the citizens will have to employ them more than ever while the M. D. does his duty. It is a sad situation and much of the disturbing element may be laid at our own door for not having safeguarded our rights and privileges of practice in the Legislature a little over a decade ago.

Medical Practitioners are over-worked at present and will have to take on more of the burden as time goes on. Hospitals are full to the doors and in some cases undermanned by staff doctors and sorely in need of nurses, young women naturally being lured to occupations paying high wages rather than being stimulated to entering training schools.

Hospitals today are confronted with many special problems arising from the War and the Defense Program. They have all been taking an active and vigorous part in working out plans and programs in co-ordination with Civilian Defense. The medical care of civilian casualties has become the duty of the Medical Division of Civilian Defense. Organizing the medical resources of the community has given rise to the development of what is known as the Emergency Medical Service. In this program the hospitals are the very cornerstones on which the emergency medical service rests in striving to prepare for every conceivable emergency; such as black-out and fire protection. Publications of the Medical Division of the Office of Civilian Defense have outlined approved methods for organizing the hospital staff in the field unit. They have also indicated the equipment and supplies which will be found suitable for First Aid posts and casualty stations. It should be emphasized here that the casualty stations are to serve as hospital sub-stations located in municipal buildings in areas which may be remote from the general hospital and not otherwise adequately served. They may act as filtering stations to prevent overloading the hospitals with non-serious cases.

The cost of hospitalizing persons injured as a result of enemy action will be borne by the Federal Government. A sum of money has been set aside for this purpose. It is also proposed to reimburse for supplies used in caring for the casualties. A rate to pay for hospitalized patients has

been established. The Regional Medical Offices for Civilian Defense are at present setting up the administrative machinery.

In certain vulnerable areas it may be necessary to evacuate the hospital at any time. This may be a partial or total evacuation. It may be necessary to remove chronic cases from the receiving hospitals to make room for the reception of casualties. On the other hand, the more protected hospitals may be called upon to receive patients from evacuated hospitals. This means there must necessarily be a closer relationship between the hospitals, in some cases that amounts to an affiliation. Hospital administrators have been busy throughout the year planning for any eventualities.

The program for the development of extensive blood banks in the hospital is more than a plan to meet emergencies. Blood transfusion is not a new procedure, although many of the refinements of technique are recent developments. In the past, however, the blood transfusion was a tedious and expensive procedure and was consequently too often used only in extreme emergencies. With the proper collection, preparation, and storage of blood or plasma it becomes a relatively simple and inexpensive treatment and need not be reserved for patients in extreme need. The remarkable gratifying results obtained at Pearl Harbor were due in large measure to the prompt and repeated blood plasma treatment administered to the casualties. This indicates that blood transfusions either of whole blood or plasma will become a more standard procedure in all hospitals. They must be encouraged to be prepared for it. The Federal Government recognizing this need has set aside a fund which is available to the Medical Division of the Office of Civilian Defense for the establishment of Blood Banks in these hospitals. The State through the Office of Civilian Defense has also set aside a fund for Blood Banks. This will enable them to provide three Blood Bank Centers here in the State of Maine; Bangor, Lewiston, and Portland.

Another problem confronting the hospitals has been the loss of Staff members to the Armed Forces. It is quite certain that there will be further losses. In spite of the hardships that this works on hospitals there is not one that is not proud that its Staff members are serving their country. More sacrifices will be made, and made cheerfully, to insure sufficient medical personnel for our Army and Navy. Necessarily this will impose added responsibilities to those who remain at home. In addition to the increased load of caring for the sick, there will be the need for preparing for emergency medical services in these days of total war. The Maine General Hospital through its Staff has organized General Hospital, No. 67. Many of the doctors enlisted with this unit come from many hospitals throughout the State.

Not alone in the Medical Staff personnel are the hospitals being depleted; nurses, too, are being called into the service until hospitals are finding it more and more difficult to replace them. There has been established in many hospitals under the direction of the Red Cross, classes for the training of Nurse Aides. These are women of independent income volunteering to aid hospitals without pay. Trained to work only under the direction of graduate nurses. They increase the nurses efficiency by doing certain routine tasks requiring no professional training. The hospitals have not yet explored the possibilities of this field. Many other volunteer workers have also enlisted their services in the hospital; such as hostesses, clinical clerks, and canteen workers. Many of the departments of the hospital, however, suffer for a lack of personnel. This is particularly true in the Maintenance Department, the Housekeeping Department,

and the Dietary Department. We are told that the need for trained nurses for duty in the Armed Forces is not being met. Enlistments, however, have reduced the available number of nurses for services in civilian hospitals and concurrently the increased number of patients in these hospitals has created a nationwide shortage of nurses for institutional duty. The enrollment of more students in schools of nursing has been encouraged by the United States Department of Public Health plus supplied funds to Hospital Training Schools for the advancement of Nurse Education.

Other special problems arising from the war is of course the obtaining of adequate equipment, and supplies, under the priorities planned. The whole purpose of the War Production Board is to see that the American Industries first supply the munitions of war in quantities sufficient to insure victory for the allied nations and second maintain production and distribution of commodities of civilian supply necessary for aiding not only the winning of the war, but also the winning of the peace.

Because of the war demands upon the productive capacities of the United States, shortages in the civilian supply of many of our commodities are altogether inevitable. It is to meet these shortages or to lessen these effects upon the essential segments of our economy that the priorities planned have been affected. Shortages have been brought about through the decline or cutting off in import trade or where the severity between supply and demand is heightened by the necessity for increased export as well as increased domestic consumption. The priority problem becomes a general problem not only containing the usual elements of economics and industrial production, but further complicated by consideration of military strategy, hemispheric defense, national domestic policy, and international relations including economic warfare. Because of the increasing costs of commodities and increasing payrolls, it has been necessary for hospitals to increase hospital rates to the patients in need to meet increased expenses. Through the Lanham Act funds have been made available for hospital construction. Presque Isle General Hospital, Bath Memorial Hospital, Mercy Hospital, and the Maine General Hospital, have all had grants and aid from this source for the purpose of increasing their hospital facilities to meet the demands brought about by increased industrial activities in these communities. Hospital Service Plans have increased their enrollment with the result that there has been an increasing number of hospital admissions by patients holding Blue Cross Certificates. Forty-five general hospitals and nearly 50,000 individuals are now members of the Associated Hospital Service of Maine, which has been in operation just three and a half years! It is but one of seventy-one non-profit hospital service plans operating in the United States and Canada that meet standards for approval by the American Hospital Association.

These are indeed trying times for hospitals and the medical profession. Let us not fail in our responsibilities. The hospital and the medical affairs of the Government rests in the hands of responsible people from our own ranks. Let us all bear in mind the importance and necessity of an efficient health service.

CHAIRMAN STEVENS: We shall now have the report of the Financial Advisory Committee by Dr. Albert W. Plummer.

DR. ALBERT W. PLUMMER of Lisbon Falls: Mr. Chairman and Gentlemen. The Financial Advisory Committee reported about a year ago; it was formed to go over the financial standing, the securities and the like, of the Association, and to make recommendations.

There was not exactly a clear understanding of just what our function would be, but we finally concluded that it was merely to make recommendation for action of the House of Delegates or for the Council to act upon.

We have looked over, as best we could, and I think Dr. Kershner has taken up the matter particularly with some financial brokers as to the bonds and the securities that are held by the Association, and I think the opinion that he obtained was that probably no improvement could be made in that aspect of the investments at the present time, although perhaps some of them are not too good.

We have, however, considered the matter of the funds that are now on deposit in the bank, Mr. Chairman, and we have brought in the following report.

The Financial Advisory Committee of your Association recommends that the Council consider the advisability of investing in war bonds such part of the funds of the Association now in banks in savings accounts, as it seems expedient.

This report is dated June 22, 1942, and is signed by A. W. Plummer, George L. Pratt and Warren E. Kershner.

CHAIRMAN STEVENS: The report of the Financial Advisory Committee, you have heard, Gentlemen. The Chair awaits any action you wish to take as to this report.

SECRETARY CARTER: I move that the report of the Financial Advisory Committee be accepted.

This motion was duly seconded by several of the members present and was carried.

CHAIRMAN STEVENS: The next Committee to report is the Committee on Maternal and Child Welfare. Dr. Roland B. Moore of Portland, Chairman of that Committee, is not here.

The next report we are to hear is that of the special Committee on Industrial Health, by Dr. Stephen A. Cobb of Sanford.

DR. STEPHEN A. COBB of Sanford: This is a committee that is new in this Association. We are one of the few states that did not have any Committee on Industrial Health, until Dr. Ebbett appointed a few of the men to serve on this Committee, owing to the emergency that has arisen.

As you gentlemen know, the Workmen's Compensation Act made it necessary that the big industries in the State, especially in hiring men, had to have certain rigid physical rules set down before they were hired.

Now comes the word from the American Medical Association that we have got to go ahead and utilize all of our manpower in the State. For that reason, Dr. Ebbett saw fit to start this Committee in this State.

The time has come when we, no longer, can throw out of industry, men with hernias, one eye, ulcers, high blood pressure, and so forth. We have got to use the manpower we have and put them into the right places. For that reason, your Committee met this noon and got organized to some extent, and tomorrow noon, we have Dr. Kessler, Lieutenant-Commander Kessler, who belongs to the Council on Industrial Health of the American Medical Association, sent to us by the A. M. A., and we will have a meeting in the first Conference Room on the right as you come in from the lobby tomorrow noon at twelve o'clock.

I have contacted twenty or twenty-five men who, I know, are engaged in industrial surgery and medicine. I am sure that Dr. Kessler will give us a fine talk and will tell us just what we have got to do. Any one who is under industrial health, hygiene or surgery will be welcome. (Applause)

CHAIRMAN STEVENS: You have heard Dr. Cobb's report, Gentlemen. What is your pleasure?

DR. CLYDE E. RICHARDSON of Brunswick: I move that the report of the Special Committee on Industrial Health be accepted.

This motion was duly seconded and was carried.

CHAIRMAN STEVENS: Is Dr. Greco of Portland here, to give his report of the Committee on Tuberculosis? He is not here.

Next, we shall have a report from Dr. Frederick T. Hill regarding his work on the Committee on Graduate Education.

DR. FREDERICK T. HILL of Waterville: Mr. Chairman and members of the House of Delegates. Our Committee submitted a report to be published in the May JOURNAL, which was rather a negative report. It was obvious that the post-graduate activity which had been carried on for the past two years would be rather out for the duration of the war.

The New England Post-Graduate Assembly is to be given up. The Fellowships that men from many of the communities in Maine have enjoyed, such as the Commonwealth Fund, are on the way out. The Commonwealth Fund will give no Fellowships after October, and the organized Fellowships will be out.

Since that time, something else has developed which I think you should consider. If I can perhaps just go back a little bit and paint the picture, I can bring it to you better.

Some few years ago, in the American Academy of Ophthalmology and Oto-Laryngology, we started the Home Study Course. This was done to allow the younger men and perhaps some of the men who hadn't had the advantages in the specialties, an opportunity to improve and to fit themselves to take one or both of the national examinations.

At that time, I thought it was a rather time-wasting effort.

At that time, I had to do with the anatomy of oto-laryngology, and I had to correct examination papers, with the help of some of my friends. So I felt it was a complete waste of time.

This year, I was forced to change my mind entirely. We had a number of men coming up for the Board examinations this spring, men who had failed before, and who, this year, passed a very good examination. We, on the Board, were asked to watch out for these men. I had a number of them, myself, and I asked them if they had taken the Home Study Course, and they said they had, and, without an exception, each one said it was of immeasurable benefit; it had given them organized reading.

So, we had evidence and we thought that this sort of thing was worth while.

In Atlantic City at the time of the American Medical Association meeting, the Association's Committee on Post-Graduate Education, made up of similar committees from each State, had their Annual Joint Meeting. There was still this discouraging note, as to what you could do about this. Each State has a different program, of course. It was practically out. Yet, everybody was very conscious that it was too bad and that something must be done. In any event, we would do all we could to keep up the standard of practice.

With the younger men going into the service, and with the older men not quite so active, being called into a greater activity in medicine, some sort of a contribution of education was more necessary than ever.

The only solution I had considered at all was to further develop the staff programs in the individual hospitals.

After that meeting, it occurred to me that perhaps this Home Study idea might be utilized. I talked to some of the men, especially Roy Harkins, who has been Secretary of the Associated Com-

mittees since their inception. He felt that it would be a grand thing to try out. It is the feeling of the Associated Committees, at least of the Executive Committee, that perhaps in Maine, we might try this out as a sort of guinea-pig.

Now, the idea would be something like this. The graduates in medicine, eye, ear, nose and throat specialty, would be the ones offered the Home Study Course, and you men will not have to be concerned with the machinery of the thing, as that is all set up; the Academy is going to carry on the Home Study Course.

We would suggest that a similar course in Surgery, in Medicine, Obstetrics and Pediatrics be inaugurated.

This would simply suggest organized reading. It would mean an active sub-committee in each one of these branches of medicine would have to go to work. They would suggest certain pertinent subjects, with the references where the up-to-date material could be obtained.

As an example, I was talking with Phil Thompson last night, and he was very enthusiastic about it. He suggested one question that might be of importance in the medical effort. You know, the modern treatment of gall bladder disease has changed, and then where the person taking the course could find that material so that further study could be carried on, would be one of the purposes of this sort of post-graduate education. The same would be true in the different lines of medicine.

Now, the pediatricians are enthusiastic.

I have talked with a number of surgical people, and they are enthusiastic.

I think the majority of our committee are enthusiastic. So that if you care to endorse this, our Committee will try to organize it, with the help of some of you people, who will have to take hold of it.

It will be merely suggested and organized reading along a home study idea. I will leave it for your consideration.

CHAIRMAN STEVENS: You have heard Dr. Hill's report. What action do you wish to take on this report at this time, Gentlemen?

DR. THOMAS A. FOSTER: I move that this suggestion by Dr. Hill be approved, and that the Committee be urged to map out a program.

This motion was duly seconded by Dr. Jameson and others present, and was carried.

DR. C. HAROLD JAMESON: It occurs to me that the excellent report of the Committee on Hospitals and Medical Education was not acted upon.

CHAIRMAN STEVENS: I believe you are correct, Dr. Jameson; it was an oversight on my part. What is your pleasure with reference to this report?

DR. C. HAROLD JAMESON: I move the acceptance of the report of the Committee on Hospitals and Medical Education.

This motion was duly seconded and was carried.

CHAIRMAN STEVENS: We now come to the item of new business. Yesterday, you will recall that the Council recommended that we do not have a Fall Clinical Session in 1942. No definite action has been taken on that point. I think that matter should be brought up at this time, so I shall place that subject before the House of Delegates for definite action as to whether or not we shall have a Fall Clinical Session; because of the war conditions, many men will be away, and the men at home are already taxed, so the Council felt that it was inadvisable to have a session in the fall of 1942.

DR. ELTON R. BLAISDELL of Portland: I move that we approve the council's recommendation, that we do not have a Fall Clinical Session in 1942.

This motion was duly seconded by many of the members present, and was carried.

CHAIRMAN STEVENS: The next item of new business is the matter of the Annual Session in 1943, whether or not we should have an Annual Session, and if so, where shall it be? The Chair awaits your pleasure in this matter.

DR. GEORGE L. PRATT: I move that the Annual Session matter be left in the hands of the Council.

This matter was duly seconded.

DR. ALBERT W. PLUMMER: I like this place out here very much, but the question arises as to whether we can go some place that is more readily accessible by railroad, provided the present conditions continue.

Upon a hand vote, the motion to leave the Annual Session matter in the hands of the Council was carried.

To be concluded in the December Issue

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*Newer Knowledge Concerning Arterial Hypertension**

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Arterial hypertension (better termed hyperpiesia, hypertensive cardiovascular disease, or diffuse arteriolar disease with hypertension) is the most important single pathological syndrome to which mankind is subject, both from the standpoint of morbidity and of mortality. Heart disease leads all other causes of death; the chief cause of heart disease is hypertension, and when there is added to this deaths caused by cerebral accidents and by uremia secondary to hypertension, the importance of the disturbance becomes even more obvious. It is estimated that 10 to 15 per cent of all adults have some degree of hypertension and as many as one-third of those over 50 may suffer from it.

We are now passing through a period in medical history when intensive investigation is going on throughout the world regarding various aspects of this problem and many new facts are constantly coming to light. Most of the experimental work to date has not yet been translated into widespread, practical clinical applicability, but there are indications that soon knowledge which has been

and is being gained will be turned to such practical use. It is my purpose in this communication to present a summary of some of the recent important work which has been done in this field.

It is of interest to look back over the years and consider the changing hypotheses regarding the nature of hypertension. We have in a sense come almost full circle since the time of Richard Bright. It was he, who in 1827, in his epoch-making descriptions of renal disease, first clearly recognized its association with cardiovascular disorders, for he described "the full, hard pulse" and noted hypertrophy of the left ventricle in these patients. This was the genesis of the concept of high arterial blood pressure as the result of kidney disease which became firmly implanted in medical minds and remained there throughout the nineteenth century and even later. There still lingers only too widely that medical anachronism, the treatment of hypertension by a low-protein, salt-free diet, given in the belief that "the kidneys will be spared."

* Read at the Annual Meeting of the Maine Medical Association, York Harbor, June 23, 1941.

In spite of this persistent clinical belief in the renal origin of hypertension, medical investigators in the 1870's began to emphasize the generalized nature of the vascular disease in hypertension. Thus Gull and Sutton, in 1872, described the morphological picture of generalized "arterio-capillary fibrosis" occurring with or without renal disease, and in 1874 that brilliant young British doctor, Mahomed, was the first properly to recognize high blood pressure clinically and its importance as a primary condition. In the 1890's and later, Allbutt in England, Huchard in France, Volhard in Germany and Janeway in this country were the leaders in bringing into general acceptance the concept of hypertension as a primary condition. The clinical recognition of this syndrome was, of course, vastly stimulated by the introduction of a practical bedside sphygmomanometer by Riva-Rocci in 1896, which interestingly enough was first brought to this country by Harvey Cushing.

In the early years of this century essential hypertension came generally to be considered not only a primary general vascular disturbance but specifically a vasomotor disorder with a sustained increase in vasomotor tone. This hypothesis, however, came into serious question as the result of work of Prinzmetal and Wilson¹ in Boston and Pickering² in England who showed in human beings that the increased peripheral vascular resistance in this condition is independent of vasomotor tone, while the investigations of Goldblatt and others in experimental hypertension have tended to direct attention even further from the vasomotor etiology. It is with research stimulated by the pioneer studies of Goldblatt³ that there has once more been revived the concept that "essential" hypertension may be secondary to a renal disorder. Certainly many instances of hypertension occurring as the result of renal disease are now being recognized, but as I shall describe to you, there is not yet any good evidence that the vast majority of cases of essential hypertension are caused by primary kidney pathology.

The Pathogenesis of Essential Hypertension

It has been demonstrated without shadow of doubt that in essential arterial hyperten-

sion the pathological factor is *increased peripheral resistance*. The chief site for this increased resistance is the *arterioles*, and the phenomenon is generalized throughout the body. In the early stages, in most cases, this is due to narrowing as the result of *spasm* of the vessels and hence is potentially reversible. Later in the course of the disease *organic* changes in the vessels occur and the narrowing becomes at least in part fixed and irreversible. The other two factors which are important in the maintenance of blood pressure, the cardiac output and the circulating blood volume, are normal in this state.

The tone of blood vessels, which is the condition that determines the resistance they offer to blood flow, is controlled by intrinsic factors and by vasomotor stimuli. Many factors alter the intrinsic tone of vessels locally, regionally and generally. Among them are circulating hormones such as adrenalin, pitressin, sympathin and hormones of renal origin.

The autonomic nervous system, through the vasomotor nerves, has an important influence on the tone of blood vessels of the skin and is responsible for certain general vascular reflexes such as the postural reflex and those due to cold and emotion. To what extent, beyond these reflexes, vasomotor tone is normally operative in the vessels of the splanchnic area and the muscles has not been adequately determined as yet and there is some evidence that vasomotor influence in these regions is slight or absent in normal persons when recumbent and relaxed.

As I have already stated, at present the bulk of evidence indicates that essential hypertension is not primarily a vasomotor phenomenon, but is due to an increase in the *intrinsic* tone of the blood vessels. Whether there is any neural factor, induced by intermittent vasomotor activity, at all has yet to be proved.

Experimental Hypertension

In 1933, Goldblatt reported the first of a series of studies in which he showed that permanent arterial hypertension can be produced experimentally in the dog or other animals by constricting the renal arteries and thus reducing the blood flow to the kidneys.

This work has subsequently been repeated and confirmed by many other workers and similar hypertension can also be produced by a constrictive peri-renal fibrosis produced by encasing the kidneys in silk or cellophane.⁴ Further research has shown that this hypertension is independent of autonomic nervous control and hence is not vasomotor in origin, and that it is not primarily caused by any abnormal activity of the adrenal or pituitary glands.

Finally, it has been shown that it is definitely humoral in origin. The story of the question for the demonstration of a renal pressor substance dates back to work done in 1898 by Tigerstedt and Bergman,⁵ work largely neglected until the recent revival of interest in this subject. These investigators described a substance extractable from kidney tissue which raises blood pressure and named it renin. Recent studies⁶ have confirmed and elaborated this finding; studies carried on in many laboratories but notably in those of Harrison, of Page, and at the Institute of Physiology at the University of Buenos Aires. It is now apparent that the situation regarding pressor and anti-pressor activity of renal extracts is a complicated reaction. In summary it may be as follows: the kidney releases a substance, *renin*, into the blood stream, which is an enzyme. This itself does not increase blood pressure until it reacts with a substance in the blood, probably a globulin, known as *renin-activator*, or *hypertensin-precursor*. The product is pressor in action and called *angiotonin* or *hypertensin*. There is present in blood and tissues substances which counter-act the effects both of renin and of angiotonin and hence are known as *renin-inhibitor* and *angiotonin-inhibitor*, or *hypertensinase*. It appears probable that these substances, which are also enzymes, are elaborated by the normal kidney. In experimental hypertension, the high blood pressure results from an imbalance of these secretions, either an excess of renin or, more probably, a deficiency in the production of the antipressor or inhibiting substances. Whether the same is true of human hypertension has not yet been clearly demonstrated.

Very recently it has been shown, both by Grollman, Williams and Harrison,⁷ and by

Page, et al.,⁸ that extracts can be obtained from normal kidneys which, when injected and even when given by mouth, will lower the blood pressure of animals with experimental hypertension and, far more important, will also reduce the blood pressure for prolonged periods in patients suffering from essential hypertension, both benign and malignant. These results are very suggestive but it should be emphasized that they are still in the experimental stage. It has not yet been determined whether such reduction of pressure is entirely desirable, whether harmful side-effects occur, and whether it is lasting. Moreover, a very large amount of kidney tissue is required to obtain extract sufficient for the daily dose that patients must be given.

Schroeder and Adams⁹ have reported the successful use of tyrosinase in lowering the blood pressure of animals with experimental hypertension as well as in certain cases of human hypertension.

Limits of Normal Blood Pressure, Vascular Hyperreactability and the Development of Arterial Hypertension

Questions that have long troubled clinicians are: What are the limits of normal blood pressure; what is the significance of transient rises in the systolic or diastolic pressures; when does the disease process commence; and how early can it be recognized? Some light has been thrown on these questions recently.

It has been long recognized from insurance statistics that life expectancy decreases with increasing systolic pressures above 145-150 mm. Hg. Recently, Robinson and Brucer¹⁰ have shown from a study of 11,383 individuals that systolic pressures above 120 carried an increasingly poor prognosis, and they therefore consider 120 as the upper limit of normal. This is a rather more radical step in definition than most authorities are prepared to take in the light of present evidence.

Of great significance is a study recently reported by Hines.¹¹ He made a 10- and 20-year follow-up investigation of 1,522 persons admitted to the Mayo Clinic whose admission pressures ranged from a low to high normal figure (160 mm. Hg. systolic, 100 mm. Hg.

diastolic). He found that those patients whose diastolic pressures were below 85 had developed hypertension 20 years later in only 3.8 per cent of cases, whereas those whose diastolic pressures were 85-100 mm. had subsequent hypertension in 50-82 per cent, regardless of whether the systolic pressure was low or high (140-160 mm. Hg.) normal. Since those patients with high normal pressures at the initial examination fall into that group who are likely to be labelled by most doctors as having an "emotional" rise in pressure of no prognostic importance, Hines' findings are of significance because they indicate, first, that those individuals who show such transitory increases of blood pressure into the higher brackets of normal are very much more likely to develop hypertension subsequently, and, second, that the level of the diastolic pressure is of much greater importance than the systolic.

Etiological Factors in Essential Hypertension

In some cases of arterial hypertension the etiology can definitely be determined. In the great majority, however, the actual cause cannot be ascertained. There are, nevertheless, a number of etiological factors which play a role in the genesis of many such cases, the actual degree of importance or the mechanism of action of which may not be completely clear. It is desirable to evaluate these factors which may be operative singly or in combination in the clinical study of any given patient.

They may be grouped under several headings:

I. RENAL FACTORS.

(a) Renal Ischemia from Extrarenal Interference with Blood Flow.

A number of cases of hypertension have been reported¹² in which the renal arteries on one or both sides were partially occluded by arteriosclerotic plaques or some other cause such as tumor tissue. Blackman¹³ has reported a study on autopsy material of the caliber of the renal arteries. He found stenosis of one or both vessels in 86 per cent of 50 hypertensive cases and in only 10 per cent of an equal number of subjects who had had

normal blood pressures. It is, of course, impossible to conclude with any certainty from such a study that the hypertension was the result of the arterial narrowing since the sclerosis and stenosis of the renal vessels might have been caused by and followed the hypertensive process.

The hypertension occurring in coarctation of the aorta is probably due to renal ischemia.¹⁴

(b) Renal Ischemia from Intrarenal Disease.

It has been known for a long time that glomerular nephritis, both acute and chronic, is accompanied by hypertension; and the high pressure of the chronic type, at least, is certainly related to the renal lesion and probably to renal ischemia. Patients with polycystic kidneys, renal tumors and rarely renal amyloidosis may also develop hypertension, and that seen in patients with periarteritis nodosa and lupus erythematosus disseminatus may also be on a renal basis.

From the practical point of view the most significant recent contribution to this phase of the subject was the demonstration by Weiss and Parker¹⁵ of the frequency with which hypertension develops in patients with chronic or healed pyelonephritis, often years after the infection itself had subsided. Not uncommonly such hypertension is of the "malignant" type. In fact these authors estimate that 15 to 20 per cent of persons with "malignant" hypertension have it as the result of chronic or healed pyelonephritis, and such pyelonephritis, or "pyelitis" as it is still commonly called, when active need never have been very severe or prolonged.

Some light on why some patients with renal disease, such as pyelonephritis, develop hypertension and others do not, is shed by the study of Hines and Lander.¹⁶ They found that patients with such renal disease who developed hypertension usually had had a high normal pressure at the time of, or before, the original renal infection whereas those who did not develop high blood pressure had had low normal pressures. In other words, disease of this type produced hypertension only in those persons who had a constitutional predilection for it.

The clinical importance of these investigations is mainly two-fold. First, it is an added reason for vigorous treatment and prolonged follow-up of patients with even apparently minor urinary tract infections. With the effective drugs now at our command, the infection in most of such patients can be stopped promptly. It should always be remembered, however, that recurrences of urinary tract infections are common.

Second, hypertension may have developed as the result of unilateral renal disease, and may be relieved by the removal of the affected kidney. Several such successes have been reported,¹⁷ mainly in cases of unilateral pyelonephritis. Such dramatic results are, however, not common and a number of recent reports¹⁸ stress the infrequency with which nephrectomy abolishes hypertension. This is probably because the investigative methods which we possess are not sufficiently delicate to reveal the presence of the underlying disease in the other kidney or because the hypertension may have persisted so long that it in turn had produced vascular changes which were irreversible.

II. ENDOCRINE FACTORS.

Certain tumors or dyscrasias of the adrenal gland, both cortex and medulla, may be associated with hypertension. Pituitary dysfunction and neoplasms, notably basophilic adenoma, also bear an etiological relationship to high blood pressure. The significance of ovarian dysfunction to hypertension is less clear. Certain it is that at the time of the menopause hypertension first appears or becomes aggravated in many women and this hypertension is frequently benign and in fact may sometimes diminish as the climacteric is passed.

It has been recognized for many years that obesity and high blood pressure are commonly associated. Robinson and Brucer¹⁹ have recently shown that body build is even more important, since wide-chested individuals are much more prone to the development of high blood pressure than those with narrow chests. Whether there is an endocrine factor involved here is as yet undisclosed.

III. HEREDITARY FACTOR.

The factor of heredity has been the subject of a good deal of study²⁰ and the conclusion is inescapable that there is a strong hereditary tendency for the transmission of hypertensive disease, so much so that persons with hypertension have a positive family history of cardiovascular disease in 86 per cent of cases, compared to an incidence of 17 per cent for individuals with normal blood pressures. It is possible that the trait is inherited as a dominant characteristic.

It is therefore evident that there are a number of factors which are known to play a role in the etiology of hypertension. These may act singly or in combination. It must be admitted, however, that the ultimate explanation of the cause of hypertension in the majority of patients is still unknown.

Medical Treatment of Hypertension

No significant advance in the medical treatment of hypertension which is of practical use has been made in recent years. The recently reported use of renal extracts is suggestive and promising but this form of treatment is still distinctly in the experimental stage and it will be some time yet before it can be said whether it is clinically practicable. There has been some revival of interest in the use of thiocyanates recently, and reports of success in a considerable percentage of cases both in relieving symptoms and in reducing blood pressure. But reports of the toxic effects have also appeared with disturbing frequency. It is the opinion²¹ of those who have considerable experience in thiocyanate therapy that these drugs are toxic and if they are used repeatedly determinations should always be made of the patient's blood thiocyanate level. Because of the toxicity of the drug and the care with which patients receiving it must be followed, its use is limited to a relatively small group of cases with severe hypertension and mainly those with intractable symptoms.

There is no drug or substance which is clinically available which has been proven to induce a prolonged lowering of elevated blood pressure by a restoration to normal of

circulatory dynamics. Drugs which are useful are mainly sedatives, the effectiveness of which resides in their action on the nervous and not on the vascular system. The medical treatment of hypertension, therefore, comes down essentially to the general management of the patient, to teaching him to live within his reserves and to relax mentally and physically, to removing burdens on the circulation, and to the watching for and treatment of complications in their incipency.

Surgical Treatment of Hypertension

Several surgical procedures for the relief of hypertension have been proposed during the last few years. The operation which is most widely advocated is some form of splanchnic sympathectomy which may or may not be combined with resection of varying amounts of the lower dorsal and lumbar sympathetic chains. A number of enthusiastic reports have been published concerning the operative treatment,²² as well as some which are more critical.²³

It is always difficult to appraise the results of any treatment for hypertension. It is a condition which is chronic and subject to great spontaneous fluctuations and even regression and disappearance. Patients are often favorably influenced by the psychic effect of treatment enthusiastically given, especially if it is dramatic in nature. Obvious, non-specific events, such as incidental operations for some other disease²⁴ may reduce the hypertension. The literature of the last years is filled with papers citing the beneficial effects of all sorts of medicinal treatments. In a short time such therapy is usually justifiably discarded.

The problem of assessing the results of surgical procedures is further complicated by the multiplicity of operations that have been advocated, the comparatively short length of time many of the patients have been followed, and the lack of theoretical rationale for the operation. These operations were originally introduced on the theory that increased vasomotor activity which was involved in the pathogenesis of the disease would be abolished in a large vascular area. There is at present no convincing evidence that a heightened vasomotor activity plays any important

causative role in the disease. It has recently been put forward by some that these operative procedures are effective by improving renal blood flow, but further evidence in favor of this concept must be furnished. Corcoran and Page,²⁵ on the other hand, found no increase in renal blood flow in two patients studied by them before and after operation. The more conservative of the advocates of surgery admit the procedure is to be judged on an empirical basis and may be but a palliative measure. Judgment of the ultimate value of the surgery is, moreover, made difficult because of the lack of an adequate amount of physiologic study regarding what effect the operation has on the dynamics of the circulation especially in the unsympathectomized regions. It has not yet been demonstrated that blood flow to these parts of the body may not be impaired.

Against all this negative criticism one can place the empirical evidence of the results. Those cases which are most impressive are the occasional patients with malignant hypertension in which the disease process has definitely regressed for months or years, because if any certain statement can be made about the course of malignant hypertension under medical treatment it is that it is a progressive condition to an early termination in death.

At the present time, therefore, the surgical treatment of hypertension should be considered in the experimental stage, and the procedures when done should be carried out only by surgeons who are particularly studying the condition and are trained in the operative technique. As regards advocating it for one's patients, it is my opinion that it is justifiable for patients with malignant hypertension, or severe benign hypertension with intractable and incapacitating symptoms. These patients have nothing to expect from medical treatment and a poor life expectancy, and a few of them may gain symptomatic relief for a few months or longer and even improvement in cardiovascular status after a radical sympathectomy. I do not believe that it is advisable for patients with hypertension of less severity, for they have a fair to good prognosis under medical management and we do not know what the next few years may offer for them either as to spe-

cific medical treatment or a standardized operation whose effectiveness is definitely known. It should be further borne in mind that the extensive sympathectomies which are being advocated require a high degree of specialized surgical skill and knowledge, and post-operatively the patients are at least partially invalidated for some months.

SUMMARY

Recent advances in our knowledge concerning hypertension, both experimental and human, have been summarized, especially as regards etiology and treatment. It is to be emphasized that although there is increasing knowledge regarding the etiological factors involved in the production of hypertension, the ultimate cause of the greater majority of instances of human "essential" hypertension is still unknown.

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The Platform of the American Medical Association

The American Medical Association advocates:

1. The establishment of an agency of the federal government under which shall be coördinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need, for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical

services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American system of democracy.

The Freudian Theories

Section I: Definitions

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The purpose of this paper is to summarize the Freudian theories in as few words as possible, and yet not omit any of their basic elements. To assure himself and the reader against the creeping in of any possible misinterpretation for the sake of criticism, the writer has constructed this article mainly out of the writings of Freud and those of his accredited followers. These quotations, calling for a context in keeping with their tenses (some in the present tense, some in the past), necessitated the special arrangement of the material.

In keeping with his theories Freud classified the *PSYCHONEUROSES* in his own distinctive manner—to be cited later. For the sake of comparison we will give a brief summary of the symptomatology of these ailments as classified before the introduction of the Freudian hypotheses:—

In *HYSTERIA* one finds: paralyses; epileptiform seizures; ties; attacks of asthma; characteristic anesthetics; atrophies due to disuse; the formation of blisters; cyanosis of parts; amnesias; paroxysms of laughing and crying or of exultations and depressions; multiple personality.

In *NEURASTHENIA* there are motor and sensory fatigability; difficulty at concentration; headaches; backaches; anorexia; insomnia; some emotional depression; many somatic complaints in the absence of clinical findings to justify them.

PSYCHASTHENIA is characterized by the perseverance in mind of certain ideas (obsessions), urges to do certain things (compulsions), fears of certain things or places (phobias) and anxieties.

According to Freud, not everything which constitutes mind (or soul) is in consciousness; the main portion of the soul, including the affects (feelings and emotions), is in the unconscious. Freud also analyzes the soul as

made up of the *Id* (it), the *Ego* (I) and the *SUPEREGO*. The ego and superego are partly in consciousness and partly in the unconscious.

Back of all things, deep in the unconscious, is the *id*. The *id* knows only craving for the satisfaction of its wishes, knows only the *PLEASURE-PAIN PRINCIPLE*; has no consideration for the conditions of the outer world wherein the immediate satisfaction of its urges may result in disaster. More outward is the *ego*. The latter is dominated by the *REALITY-PRINCIPLE*. It derives its energy from the *id*. It aims to carry out the wishes of the *id*, but takes into consideration the conditions of the outer world. Part of the *ego* is in the unconscious. The *superego* is derived from the *ego*. Its chief function is its criticism which creates in the *ego* an unconscious sense of guilt. The *superego* is the permanent expression of the influence of the parents. It is to a great extent unconscious.

The *LIBIDO* (lust). In so far as one can infer the *libido* is the great source of energy residing in the *id*. The *libido*, as Freud understands it, is practically identical with the sex urge. But “sexuality,” says Freud, “is a more comprehensive bodily function having pleasure as its goal and only secondarily coming to serve the ends of reproduction.”³ The psychoanalysts have broadened the concept of sexuality to include any hedonistic tendency—to include even such physiological functions as the emptying of the bladder or the bowels.

The *libido* of the infant is first directed towards its own body—pleasure is derived from the functioning of the various organs (organ eroticism); later it is directed towards the personality as a whole (the autoerotic or narcissistic stage); later still it is directed towards a member of the family of the same sex as its own (the homo-sexual stage); later still—towards a member of the

family of the opposite sex (the hetero-sexual stage).

Regarding sex Freud says: "We have a large number of component instincts arising from the various parts of the body, which strive for satisfaction more or less independently of one another and find satisfaction in what may be called *organ pleasure*. The genitals are the latest of these *erotogenic zones* . . . Many of them are put aside . . . Some of them are deflected from their aims . . . Others persist and play minor parts . . . of arousing love . . . The course of development: . . . The first of these *pregenital* phases is called the *oral phase* . . . In the second stage the *sadistic* and *anal* impulses come to the fore . . . Third comes the *phallic phase*."² Early in life there is a diffuse distribution of the libido; later it becomes localized at different areas: oral, anal and genital.

The libido may become arrested at any of its developmental stages. An arrest of this sort is termed *Fixation*. Thus there may be fixation at the homosexual phase with the result of a corresponding perversion. There may be mother-fixation, father-fixation, etc. Similarly, if during early development a part of the body has been too frequently stimulated, the result may be, not only the predominance of this part in libidinal interest, but also the development of a special type of character. Thus psychoanalysts speak of oral, anal, muscle-, skin- or eye-erotic characters.

"The direction of the libidinal flow is constantly changing. It may, for example, be directed inwards (object love and narcissism): it may be arrested in its forward flow (fixation); or it may flow to levels representing earlier stages of development (regression); or it may become dammed up (repression); or it may be deflected into other more socially acceptable channels (sublimation)."³

CATHEXIS is the "concentration of psychic energy in a particular channel or place, libidinal or non-libidinal."³ Thus Ego-cathexis means "libido directed towards the self" (Ego-libido-narcism).³

Since the concern of the id, dominated by the pleasure-pain principle, is solely the satisfaction of its urges, and the concern of the ego is adaptation to the conditions of the

outer world, there are frequent conflicts between these elements. The result is either of the following:—

SUBLIMATION. "Sublimation is the exchange of infantile sexual aims for interests and modes of pleasure-finding which are no longer directly sexual although psychically related, and which are on a higher social level. The terms, 'desexualized' and 'aim-inhibited' . . . describe sublimated activities. Sublimation is essentially an unconscious process."³ "The satisfaction of one impulse can be substituted by the satisfaction of that of another."² (Except in the case of hunger and thirst). "The relations of an instinct to its aim and to its object are also susceptible to alterations; both can be exchanged for others; but the relation to the object is the more easily loosened of the two. There is a particular kind of modification of aim and change of object, with regard to which social values come into the picture; to this we give the name SUBLIMATION. We also have grounds for the differentiation of what we call 'aim-inhibited' instincts; these proceed from familiar sources and have unambiguous aims, but come to stop on their way to satisfaction with the result that a permanent object-cathexis and an enduring driving force come into being. Of such a kind is, for instance, the feeling of affection, whose source undoubtedly lies in sexual needs, but invariably renounces their gratifications."²

Another possible outcome of the conflict is REPRESSION. In the case of a conflict between the instinct and the ego, if the two "would struggle with each other for some time in the fullest light of consciousness until the instinct was repudiated and the charge of energy withdrawn from it, this would have been the normal solution. But in neurosis (for reasons still unknown) the conflict found a different outcome. The ego drew back, as it were, after its first shock of its conflict with the objectionable impulse and debarred the impulse from access to consciousness and from direct motor discharge, but at the same time the impulse retained its full charge of energy. I named this process REPRESSION."¹

The repressed impulse does not remain inert, but continues to be active in the uncon-

scious. It keeps struggling to force its way into consciousness, but is held back by the CENSOR.

The censor is a function of the ego.³ It is the agency in the unconscious which prevents unpleasant and repulsive ideas from entering consciousness. But these urges of the id do succeed in entering consciousness when disguised. The disguises are various: they may consist of ideas, images, symbols, tendencies and wishes of all sorts. An idea-group constellated about an emotion is a *complex*. When a complex enters consciousness in disguise its energy is drafted off. Thus such a procedure has the function of a safety-valve. Suppose the illicit urge is that of incest. It may take the form of an urge to go swimming (if water symbolized the person desired). The substituted act is in such an instance a compromise whereby the id is satisfied and there is no harm done.

Compromises of the above type constitute the phenomena of DREAMS. "In every dream an instinctual wish is displayed as fulfilled."² The dream wish is usually a sexual one; but it may also consist of a non-sexual repulsive desire the consciousness of which would horrify the ego. The wish is, therefore, disguised as something acceptable. Accordingly, the dream is made up of the MANIFEST CONTENT, the presented imagery which constitutes the mask, and of the LATENT CONTENT—of that which is behind the mask. In the dream "the isolated thought is found to be an impulse in the form of a wish, often of a very repellent kind . . . This impulse . . . makes the use of the day's residue as material; the dream which thus originates represents a situation in which the impulse is satisfied . . . The unconscious impulse makes use of this nocturnal relaxation of repression in order to push its way into consciousness with the dream. But the repressive resistance of the ego is not abolished but merely reduced. Some of it remains in the shape of censorship of dreams and forbids the unconscious impulse to express itself in the form which it would properly assume. In consequence . . . the latent dream thoughts are obliged to submit to being altered . . . We are, therefore, justified in asserting that *a dream is the (disguised) fulfillment of a (repressed) wish* . . .

The general function of dreaming: it serves the purpose of warding off, by a kind of soothing action, external and internal stimuli which would tend to arouse the sleeper . . . External stimuli are warded off by being given new interpretations . . . Internal stimuli caused by the pressure of the instincts are given free play by the sleeper and allowed to find satisfaction in the formation of dreams so long as the latent dream thoughts submit to the control of the censorship. But if they threaten to break free and the meaning of the dream becomes too plain, the sleeper cuts short the dream and awakens in terror. (Dreams of this class are known as anxiety dreams)."¹ "There is no contradiction of this function in the fact that the dream sometimes wakes the sleeper in a state of anxiety; it is rather a sign that the watcher regards the situation as being too dangerous and no longer thinks he can cope with it."² "Even punishment dreams are wish-fulfilling, but they do fulfill the wishes of the instinctual impulses but those of the critical censoring and punishing functions of the mind."² Among the various processes by means of which the dream is distorted Freud mentions CONDENSATION, as the condensation of two or more persons into one, and DISPLACEMENT of the accent so that the significant appears as the insignificant part of the dream. In dream-work the affects (which give the accents) are separated from the ideas and may be transferred to other ideas.

Similar transformations and expressions of unconscious wishes occur in SYMPTOMATIC ACTS, that is, in such acts as slips of speech, mislaying of objects, etc. The consciously loyal host, for instance, may, as the result of an unconscious wish, the admission of which the ego would not tolerate, accidentally introduce his guest, the crown prince, as the "clown prince" which, as a slip of the tongue, is readily overlooked.

Unconscious impulses occasionally find expression in the form of such symptoms as constitute the neuroses and the psychoneuroses. When the urge of the id is strong and the ego feels too weak to cope with it, the ego "makes an attempt at flight, deserting this specific part of the id, it refuses all such assistance as it usually renders to urges rising

from the id. We refer to such cases as repression of the urges by the I . . . The isolated urge . . . contrives to compensate itself by engendering psychological derivatives which take its place and, connecting with other psychological derivatives, estranges them to the I. Finally in the form of an unrecognizable substitute the isolated urge penetrates the I and to consciousness presenting itself as what is known as a symptom . . . the id taking revenge on the I. This revenge of the id on the I results in nothing else than a neurosis."¹

A process of the above type is evident in hysteria wherein there is the conversion of the urges into symptoms. CONVERSION is "the symbolic expression by means of physical manifestations (motor or sensory) of both repressed instinctual wishes and the defense set up against them . . . Hysterical symptoms mean that the repression has been unsuccessful and the affective energy of what is repressed radiates into the body sphere."³ "Conversion hysteria genitalizes those parts of the body at which the symptoms are manifested." (Ferenczi).

Thus when the energy of the repellant urge becomes converted into body symptoms the result is CONVERSION HYSTERIA. But if it happens that some or all the energy is left unconverted it turns into a sense of anxiety which is "free floating," that is, not an anxiety over this or that possibility, but just a sense of anxiety which has no particular object. In the case of hysteria this free-floating anxiety soon becomes attached, that is, associated with some object or idea. It accordingly becomes a PHOBIA. Thus the symptom-group designated as phobias, which others include under the symptomatology of psychasthenia, is distinguished by Freud as a separate entity which he names ANXIETY HYSTERIA. "This projection occurs because of the anxiety which conscious realization of a repressed wish would entail. The phobia may also represent a repressed complex whose affective tone has become detached and shifted into an idea which bears relation to the unconscious one, minus the sexual connotation. But whether sexual or not, the interpretation is that all phobias represent an unconscious sense of guilt attached to an early memory . . . *Hysterical Anxiety* . . . is not directly de-

pendent upon frustration from without and . . . it may even undergo conversion."⁴

Before discussing the other neuroses we must mention the evolutionary changes which occur in "practically all neuroses:—

1. "Failure of adjustment to difficult situations in adolescent or adult love brings about an *external conflict*. This, in the constitutionally predisposed individual, constitutes the precipitating trauma.

2. "Inability to settle the conflict in terms of reality necessitates withdrawal into phantasy which implies *regression* to various levels of infantile fixation. The degree varies . . .

3. "*Repression*, or the exclusion from consciousness of unconscious infantile wishes.

4. "Repression in turn leads to *inner conflict*. The conflict may be resolved in one of a number of ways. There may be successful repression or sublimation and the elimination of the conflict. The conflict may be resolved by means of inner dissociation and the formation of symptoms. The inner conflict may lead to further repression and the shifting of the ungratified wishes to ever lower levels. This in turn keeps up that inner fermentation which leads to anomalies of conduct whose motive is obscure. Parenthetically it may be pointed out that in the neuroses the libido may regress to the lowest level of what is known as object-fixation, namely the second phase of sexual development. Where the regression proceeds to the narcissistic stage and the libido so to speak becomes attached to the ego, the result is a psychosis."⁴

Before proceeding farther we must clarify the term TRANSFERENCE used in connection with neuroses: "The ability to shift the object-libido or to 'transfer' it from one person to another is known as TRANSFERENCE . . . Transference is looked upon as a love relationship though it may be either positive or negative . . . The loose attachment of the object-libido and the possibility of shifting it more or less easily are regarded as characteristic of certain neuroses (particularly of hysteria)."⁴

The other symptom-group, included under psychasthenia, which Freud identifies as a distinct entity is that of the compulsions. Freud

terms this group as COMPULSION NEUROSES. "In the case of the hysterical symptom the repression extends only to the state of 'incestuous' fixation, while in compulsion neurosis there is further regression to an earlier narcissistic stage . . . The compulsive act is more of a defense reaction."⁴ "It too then is a transference neurosis." "Few or none are cured though the symptoms are removed . . . The compulsion mechanism is . . . not a fulfillment of an unconscious wish . . . The ceremonial elaborated by the compulsive neurotic absolves and protects from consciousness of guilt."⁴ In other words, these compulsions and obsessions serve the patient to keep the mischief out of his mind.

Another type of anxiety Freud identifies as ANXIETY NEUROSIS. This neurosis is the result of frustration of excited sex urges.

Freud's CLASSIFICATION OF THE NEUROSES:—

A. ACTUAL NEUROSES.

- I. ANXIETY NEUROSIS.
- II. NEURASTHENIA.
- III. HYPOCHONDRIA.
- IV. TRAUMATIC NEUROSIS (The inclusion of this neurosis here is not fully determined).

B. PSYCHONEUROSES: REGRESSION NEUROSES OR FIXATION NEUROSES.

- I. TRANSFERENCE NEUROSES.
 - a) Hysteria.
 1. Conversion hysteria.
 2. Anxiety hysteria.
 - b) Compulsion neurosis.
- II. NARCISTIC NEUROSES (psychoses).
 - a) Paraphrenia.
 - b) Schizophrenia.
 - c) Manic-Depressive.
 - d) Paranoia.
- III. OTHER REGRESSION NEUROSES.
 - a) Perversions.

b) Neurotic Character.

1. Introvert, Schizoid.
2. Extravert, Cycloid.

C. MIXED NEUROSES.

D. BORDERLINE CASES.

"Actual neuroses are characterized by physical and physiological disturbances . . . May be regarded as illustrations of mixtures of psychogenesis and organic pathogenesis."⁴

The development of the anxiety neurosis, as described by Freud, is a very complicated one. We will give only the essentials. "We have discovered two new facts," says Freud, "first that anxiety causes repression and not the other way around, as we used to think, and secondly that frightening *instinctual* situations can in the last resort be traced back to *external* situations of danger."² In the "development of anxiety in anxiety neurosis caused by somatic injury of the sexual function . . . (there is the) twofold origin of the anxiety: first the direct effect of the trauma itself, and secondly, as a signal that a somatic factor of this kind threatens to occur."² The gist of the situation is as follows: When an illicit wish threatens to invade, "the ego becomes aware that the satisfaction of some nascent instinctual demand would evoke one among the well-remembered danger situations. This instinctual cathexis must in some way or other be suppressed, removed, made powerless. Now we know that the ego succeeds in this task if it is strong . . . (But if) the ego feels weak. In such a contingency, the ego calls to its aid a technique which at the bottom is identical with that of normal thinking. Thinking is an experimental dealing with small quantities of energy, just as a general moves miniature figures about over the map before setting his troops in action. In this way the ego anticipates the satisfaction of the questionable impulse."² This anticipation is enough to recall the castration situation which, of course, gives rise to anxiety. When this anxiety develops "the pleasure-pain principle is brought into play and carries through the repression of the dangerous impulse."²

(To be continued in the January issue)

Editorial

Civilian Medical Care

The program for civilian medical care is fast shaping up to the pattern which it will follow for the duration, and which needs and *must have* the whole hearted support of the public. Conservation of medical service by the civilian population is as essential to the success of the war program as conservation of commodities such as are now rationed. The civilian knows that practically every physician under 45 years of age, who is physically fit, is now serving with the armed forces, but does not seem to realize what this means to the physician on the home front who is doubling, and in many cases tripling, his efforts.

There are many ways in which the public can be instructed to coöperate with the physician. We suggest a few which if brought to the attention of the public will undoubtedly be gratefully received when they realize that their coöperation will mean conservation of the limited supply and time of doctors for the most efficient service.

One of the most important is night calls; never call a physician during the night unless it is absolutely necessary, remember that the doctor must have his rest if he is to keep at the peak of his efficiency. When a house call is necessary call the physician as early in the day as possible in order that he may route his calls; remember that the physician is also rationed in the use of gasoline and rubber, also that he must make every minute of his day count. Whenever possible go to the doctor's office instead of calling him to the home; "An ounce of prevention is worth a pound of

cure," and consulting your physician at the first sign of illness often prevents a long and serious illness. Make every effort to prevent illness, accidents, and the spread of communicable diseases. The sacrifice of the doctor on the home front is as great as that of his colleague in military service with none of the glory, and without benefit of military insignia, remember this when inconvenienced by having to make a change in doctors, or when finding it difficult to get a doctor "right away." Remember, too, that the workers in the industrial plants are also dependent on the doctors on the home front. The importance of this phase of the war program cannot be stressed too much. These workers have got to be kept on the job to keep our armed forces supplied with war implements and supplies.

We feel that it must be a comfort to the members of the civilian population to know that the men in our armed forces are receiving adequate medical care, no matter where stationed, particularly those civilians who have relatives in the service. There are at this time enough physicians in the armed forces, but the first of the year it will again be necessary to call on the members of the medical profession for more doctors to meet increasing military needs, which will mean an even greater burden for the already overburdened doctor at home. But the civilian population will continue to receive adequate medical care *if* they will give adequate coöperation in conserving medical service.

Maternal and Child Welfare

BREAST FEEDING

A discussion of breast feeding calls to my mind Mark Twain's remark about the weather: "Every one talks about it but no one seems to do anything about it." I suppose that even in these days of almost miraculous achievements, it is still difficult to do very much about the weather. It is not difficult, however, for doctors to do something about breast feeding, and right now is a good time to do it.

It is agreed, generally agreed, that human milk offers the best nourishment to human babies. Mother's milk is specific for her baby. The outstanding characteristics of breast milk are well known to all practicing physicians. Let me review a few:

1. It is warm, fresh and free from all harmful bacterial contamination and passes directly from mother to baby. Has a specific gravity of around 1030 and a caloric value of about 20 calories to the ounce.

2. It is liquid and remains nearly liquid in stomach. Although it coagulates in stomach, the curds are fine, soft, flocculent and permeable to gastric juices.

3. It contains the essential food elements in natural and therefore ideal proportions, both as to quality and quantity.

The average representation of the different food elements is about as follows; fat—4%, protein—1.25%, lactose—7%, mineral salts—0.23%, water—87.7%.

4. It contains all the *vitamins* that are essential in early infancy, both as to kind and quantity, provided the mother's diet is adequately balanced.

The above statements are taken from Brennenman's "Practice of Pediatrics" and were written by Dr. Brennenman.

If we accept these statements as facts, and we do, why don't we insist on Breast Feeding?

Grulee, writing in the *American Journal of Diseases of Children* (58:1-7), July, 1939, says: "Nature's method of nourishing babies with breast milk has for generations produced

excellent results" — Even though the increased use of anesthesia and sedatives in labor has resulted in a certain lethargy on the part of the child, most mothers *can* nurse their babies if they wish and if they are *urged*. There seems to be an attitude of defeatism toward this subject." Here is boldly stated what most of us must feel to be the truth of the matter.

To date there has appeared no scientific evidence to prove that mothers have deteriorated as milk producers. There are some signs, however, that mothers don't want to nurse their babies and that the doctors do not urge them to start on the breast feeding. The answer to the question, "Why don't we as doctors insist on breast feeding," seems to be, then, that the mothers are allowed to go on thinking that some artificial food is just as good or better. That state of mind in the mother, it seems to this writer, should be overthrown by the physician who is in attendance during the pregnancy. It is not easy to persuade one of these mothers after her baby is born that she should start breast feeding. She has been coasting along for eight or nine months on the assumption that the baby could have a formula and that she, the mother, would be relieved of the "cares" of breast feeding. The time to start breast feeding, at least to sow the seed, is when the mother first consults the physician. If the mother, during her pregnancy is told about the advantages of breast feeding, she will much more readily adopt it when the baby is born. But this early conviction and ready adoption often melts away shortly after delivery, unless strong support for breast feeding is maintained all along the line.

Two causes for early abandonment of the breast appear in many, many cases: *First*, the fact that the gain is not always rapid and sustained. The report of your Committee of Maternal and Child Welfare for November, 1942 (published last month), states the case clearly. Mothers must be assured that the

rapid gain is not the one and only indication of healthy growth and progress.

Second, the fact that after discharge from hospital and establishment at home the baby cries "too much." This seems to be the critical period. The mother no longer has the benefits of special hospital care. She has, moreover, some of the responsibilities of the home on her shoulders. She fails to rest as much as she should and the baby often shows the effect of these changes by developing indigestion, gas, and sometimes colic. If everyone, at this time, will exercise patience, provide more rest for the mother, and quiet down the household, the period of disturbance will pass and breast feeding be maintained.

As this is being written, a mother called up to say that she couldn't buy the evaporated milk she was using in her baby's formula and asked if any other would do. This morning a young man connected with the baking industry reported that the dry milk producers told him to expect about a 90% cut in dry milk. Other materials are less abundant than they were a year ago. They may not be any more abundant next year. In certain areas and under some conditions, a scarcity of products may make breast feeding more essential than it is at present. However that

may be, no one knows definitely. But doctors know that Breast Feeding is right and proper for new born babies. They know that it has decreased in practice (One hospital in one of our larger communities reported four babies out of twenty-eight on the breast). It has never been proven that mothers are less able today than they were 25 or 50 years ago to nurse their young. Reports from the medical literature indicate that mothers do not seem well informed about the merits of breast nursing and too much informed about the ease of formula feedings; that doctors do not seem to urge breast nursing as strongly as they should. Great benefits to new-borns would follow coöperation between attending physician, nurses and mothers to revive breast nursing during the early months. To continue breast nursing alone without the addition of foods at 3 and 4 months, without orange juice and extra amounts of vitamins A and D, is not called for in this discussion. Prolonged milk diet, milk only, leads to anaemia, rhachitis and lowered resistance to infection. Breast feeding in the early months, however, combats all of these.

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County News and Notes
Aroostook

The fall meeting of the Aroostook County Medical Society was held at the Plymouth Hotel, Fort Fairfield, Maine, on October 15, 1942.

Dinner was served at 7.30 P. M.

Meeting called to order by President Thomas Harvey at 8.30 P. M.

Welcome and introduction of guests by President Harvey.

All present stood for the minute of silence in respect and memory of our recently deceased member, Dr. Parker Ward, Houlton.

Delegates elected to Maine Medical Association—Doctors Harvey and Doble.

Alternates elected—Doctors Swett and Kimball.

Invitation to all members of Aroostook County Medical Society to attend staff meetings of Medical Corps of Presque Isle Air Base given by Major Laird, M. C., U. S. A. This invitation was unanimously accepted.

PROGRAM

1. Breast Cancer—case presentations and movies of surgical procedures—Lindley Dobson, M. D., Presque Isle.

2. Kenney Treatment of Poliomyelitis—W. E. Sincock, M. C., U. S. A.

3. Sanitation Problems in Our Army—Major Laird, M. C., U. S. A.

4. Diabetes Mellitus—case presentations—H. C. Kimball, M. D., Fort Fairfield.

Doctor Dobson's paper brought out concise methods of classification and diagnosis of cancer of the breast and included X-ray plates showing metastases to bones. He concluded with a splendid movie showing details of a surgical technique in radical removal of the breast in operable cases of carcinoma.

The several cases of diabetes mellitus presented by Doctor Kimball were effective in showing some of the more unusual findings that may be associated with this disease and presented detailed courses of treatment for these conditions. One of these cases showed an unusually high glycosuria of 10% and went into surgery for emergency femoral hernia without mishap. Another case was in diabetic coma with a blood sugar of 533 mg. per 100 c.c. and received 420 units of insulin in a 7-hour period. This condition was also corrected. His summary—the severity of symptoms is not directly proportional to the amount of glycosuria.

The Kenney treatment in poliomyelitis is based upon three conditions—(1) muscle spasm, (2) muscle coordination, (3) mental alienation—stated Doctor Sincock. He added that the principles of this treatment depended upon early hot packs followed by muscle training through mental concentration upon passive movements and later, active movements. The patient must always lie in a straight position—never allowed on the side. Details of this treatment may be obtained from the National Foundation for Infantile Paralysis, Inc., 120 Broadway, New York City. There is no known cure for real paralysis. Procedure in treatment involves: (1) diagnosis, (2) complete rest, (3) combat toxicity, (4) Kenney treatment, (5) maintain morale.

The guest speaker of the evening, Major Laird, M. C., Presque Isle Air Base, U. S. A., proved somewhat of a sensation by throwing a *challenge* into the lap of the Aroostook County Medical Society. In his very direct and forceful approach to the local sanitation problems encountered at the local

Air Base, he alleged to have proved conclusively that the public water system of Presque Isle had been, through its non-potability, directly responsible for a serious epidemic of acute gastro-enteritis at the Air Base lasting for over 9 months. After considerable investigation by his Staff and Army Engineers, he finally succeeded in establishing the source of the infection and in convincing local and State health authorities of the harmful nature of the public water supply due to insufficient chlorination. This has since been remedied by the installation of needed filter equipment.

The problem, he said, was not completely solved, however, since in the course of his investigations, he found that the same conditions of unsafe and unfit water for civilian use was also found in the water systems of Caribou, Fort Fairfield, Mars Hill, Grand Isle, and Houlton.

This is a most deplorable situation, especially since it appears that a little more careful attention to chlorination would remedy the situation and the Aroostook County Medical Society felt that such apparent criminal negligence should immediately come to the attention of the Public Health authorities of the County and State.

Major Laird stated that as yet nothing had been done by the Department of Health and he briefly summarized this unsanitary condition as arising from: (1) improper methods of chlorination and filtration, and (2) inadequate chlorination of the public water supplies in these towns.

Meeting adjourned.

There were thirteen members and the following guests present: Miss Sylvia Karatya (Fort Fairfield Hospital) and the following officers from the Medical Corps, Presque Isle Air Base: Major Laird, Capt. Eugene A. Andrick, Capt. James R. Bell, Lt. H. Y. Twiss, Capt. A. L. Courville, Capt. D. H. Maurey, Capt. F. P. Maibauer, Lt. I. Zeltzerman, Lt. E. Artman, Lt. W. M. Garrett, Lt. J. Sang, Lt. J. N. Baum, Lt. H. T. Friedman, Capt. Norman O. Eaddy, Capt. Joseph H. Nicholson, Capt. Irving Pinsley, Lt. Chas. F. Banas.

Respectfully submitted,

CLYDE I. SWETT,
Secretary.

Knox

The regular meeting of the Knox County Medical Society was held at Rockland, Maine, on Tuesday, November 10, 1942.

The meeting was called to order by Doctor Carswell, president. Minutes of the last meeting were read and after some discussion approved.

Doctor Jameson explained about the 1943 meeting of the Maine Medical Society. All delegates and alternates should go, as this is a business meeting. Doctor Carswell reported on his presence as a delegate at both meetings, and stressed the importance of everyone possible doing so.

Doctor Jameson gave a very fine description of Regional Ileitis, reviewed clinic findings, and changes in treatment with the latest accepted method. Doctor Carswell opened the discussion and emphasized the obstructive aspect of chronic cases with reasons for the obstruction.

Doctor Soule being unable to attend, Doctor Foss, who was to open the discussion on Virus Pneumonia, gave a nice talk with the symptoms and clinic picture of the disease and treatments. Doctor Allen read his notes on the case, and Doctor Polisner commented on the cases he had attended, making this newly recognized disease seem one which we should readily recognize.

Both papers and discussions were very interesting and beneficial.

Adjourned.

A. J. FULLER, M. D.,
Secretary.

Penobscot

The annual meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday, November 17th.

Reports of the Secretary and Treasurer were read and approved for file. Figures show present membership of 92, with 16 already in military service.

Officers were elected for 1942-43 as follows:

President—E. T. Young, M. D., Millinocket.

Vice-President—M. C. Moulton, M. D., Bangor.

Secretary-Treasurer—F. B. Ames, M. D., Bangor.

Board of Censors—P. S. Skinner, M. D., Bangor; H. C. Scribner, M. D., Bangor; M. F. Ridlon, M. D., Bangor.

Delegates to Annual Meeting of Maine Medical Association—E. T. Young, M. D., Millinocket; F. D. Weymouth, M. D., Brewer; S. S. Silsby, M. D., Bangor; L. H. Smith, M. D., Winterport.

Alternate Delegates to Maine Medical Association—M. C. Maddan, M. D., Old Town; C. E. Blaisdell, M. D., Bangor; F. B. Ames, M. D., Bangor; H. G. McKay, M. D., Old Town.

The paper of the evening was delivered by the retiring President, A. W. Fellows, M. D., Bangor. The subject of this most instructive discourse was "The Ailing Child."

The attendance was 34.

FORREST B. AMES, M. D.,
Secretary.

Somerset

At the annual meeting of the Somerset County Medical Society, the following officers were elected to serve for the coming year:

President—Maurice S. Philbrick, of Skowhegan.

Vice-President—Lester F. Norris, of Madison.

Secretary-Treasurer—Maurice E. Lord, of Skowhegan.

Board of Censors—Walter S. Stinchfield, of Skowhegan; Ray C. Brown, of Bingham; Howard Reed, of Madison.

Program Committee—Howard Reed, of Madison; George E. Young, of Skowhegan; Maurice E. Lord, of Skowhegan.

Delegates to the State Meeting—Walter S. Stinchfield, of Skowhegan; H. E. Marston, North Anson, Alternate.

MAURICE E. LORD, M. D.,
Secretary.

Members in Military Service*

Cumberland

Hanlon, Francis W.,

Portland

Hancock

Weymouth, Raymond E.,

Bar Harbor

* For complete list see September, October, and November JOURNALS.

Necrologies

Luther Grow Bunker, M. D., 1868-1942

Luther Grow Bunker, M. D., 74, practicing physician for fifty years, died at his home in Waterville, Maine, November 26, 1942.

He was born at Trenton, Maine, March 19, 1868, the son of John E., and Mary Alley Bunker, and was graduated from Bowdoin Medical School in 1892.

He began general practice at Sanford and North Berwick in 1892, and moved to Waterville in 1895 where he remained to the time of his death.

Doctor Bunker served twelve years as a member of the Board of Registration of Medicine in Maine, and was a member of the Kennebec County Medical Society, the Maine Medical Association, and the American Medical Association. He was also a member of the Odd Fellows, the Elks, Knights of Pythias, Masonic bodies, and the Kiwanis Club.

Doctor Bunker served as city physician for six years and was mayor in 1907 and 1908.

At the June, 1942, annual session of the Maine Medical Association, he was presented with the Association's gold medal in recognition of fifty years in the practice of medicine.

Surviving are his widow, and a daughter.

Frank A. Ross, M. D., 1873-1942

Frank A. Ross, M. D., 69, physician at South Berwick, Maine, since 1904, died suddenly November 16, 1942. He had been in poor health but had recovered sufficiently to receive patients at his office.

Doctor Ross was born in Philadelphia, March 10, 1873, the son of Orrin S. and Clara Whitten Ross, and was graduated from Bowdoin Medical School in 1896. He was at Salem, Massachusetts, hospital a year following his graduation and from 1897 to 1904 was on the medical staff at the Danvers State Hospital, Danvers, Massachusetts.

He was a member of the York County Medical Society, the Maine Medical Association, and the American Medical Association. He was also a member of the Dover, N. H., Lodge of Elks, South Berwick Red Men, the Blue Lodge of Masons, Shrine, and First Baptist Church. He was a trus-

tee of the Salmon Falls, N. H., Bank, and was for many years chairman of the South Berwick board of health.

Surviving are his widow, Mrs. Myrtie E. Ross, and a daughter, Mary Elizabeth, who was graduated from the New England Baptist Hospital last May.

Parker Myles Ward, M. D., 1873-1942

Parker Myles Ward, M. D., died suddenly at his home in Houlton, Maine, on September 8, 1942, of a heart attack. Doctor Ward was graduated from Harvard University in 1898. He returned to his home town where he was in active practice for 44 years. In 1916 he began specializing in Eye, Ear, Nose and Throat, taking extensive study in New York City and in clinics in Europe.

Doctor Ward was a member of the Aroostook County Medical Society, the Maine Medical Association, the American Medical Association, and of the Monument Lodge of Masons, the Meduxinekeag Club, and the Unitarian Church.

He is survived by his wife, Diadama Sharpe, and two sons, Wendell of Braintree, Massachusetts, and Richard in the U. S. Army.

Robert James Wiseman, M. D., 1871-1942

Robert James Wiseman, M. D., of Lewiston, died November 20, 1942, in his 72nd year, following an illness of several weeks.

Doctor Wiseman was graduated from Bowdoin Medical School in 1903, as an honor student.

He established three drug stores in Lewiston, and founded and operated the Priscilla Theater, which he named after his daughter. He entered politics in 1914, and was Mayor of Lewiston nine times between then and 1934. As Mayor he took special interest in welfare and public works, and made many improvements in both departments.

He was a member of the Androscoggin County Medical Society, the Maine Medical Association, and the American Medical Association.

He is survived by his widow, a daughter, and three sons.

Proceedings
NINETIETH ANNUAL SESSION
Maine Medical Association

POLAND SPRING, MAINE

JUNE 21, 22, 23, 1942

CONTINUED FROM THE NOVEMBER ISSUE OF THE JOURNAL, PAGE 262

CHAIRMAN STEVENS: Is there any further new business to come before the meeting?

DR. FRANK A. SMITH of Westbrook: It seems to me that there is a great deal of routine that we have to go through here in approving, which all takes time. I have felt for several years that it might facilitate matters if we had some scheme of informing ourselves better of the questions that are coming up.

I think it would be excellent if we could have the Councilor in each district get together with the delegates and the President and the Secretary of the County Society, before our Annual Meeting, so that if any questions were confusing, they would be cleared up, and the delegates would have a chance to talk things over that might be important.

CHAIRMAN STEVENS: Thank you, Dr. Smith. Do you wish to make any motion regarding this?

DR. FRANK A. SMITH: I would like to hear the sentiment of the other delegates.

DR. THOMAS A. FOSTER: I would like to say that I am in accord with the idea. In the first place, the delegates should be chosen with care. The deliberations of the delegates make the policy of the Association.

The delegates are chosen early; most of the annual meetings of the counties come early. They could be chosen with great care, and then called together by the Councilor in that District, so that the time of the House of Delegates would be saved by the previous discussions of matters.

I approve of that suggestion.

CHAIRMAN STEVENS: Are there any other suggestions?

DR. ALBERT W. PLUMMER: Do I understand from Dr. Smith that the proposals that would be brought up here should be brought to the attention of the delegates through the JOURNAL or earlier in the season?

DR. FRANK A. SMITH: I might say I know that in our Society, a number of years ago, the delegates met. Now, I am not criticizing anybody; it is just the trend of the times, I think. But, we met and talked over things, and we had perhaps two or three meetings, and we talked over what was coming up or what we thought ought to be brought up to the attention of the delegates for the good of this Association.

It might be well to have a definite meeting, one or more meetings, by the delegates of each county, and to have present the Councilor from that District and the President and Secretary of that County Society.

CHAIRMAN STEVENS: You mean that each District would have a meeting prior to the House of Delegates' meeting?

DR. FRANK A. SMITH: That each county society

would have a meeting of the delegates, together with the Councilor and the President and Secretary of the county society. I suggested that the President and the Secretary of the County Society would be there, too, as well as the delegates and the Councilor from the District.

Of course, that is just a suggestion.

DR. CARL E. RICHARDS: Wouldn't it be better to unite each District's delegates, and have them meet with the Councilor for that District? It would make it a little larger meeting, and you would get a wider variety of subjects brought up.

DR. ALBERT W. PLUMMER: I like the general proposal of Dr. Smith's and I think it could be worked out in some way.

Of course, at times, there have been matters brought up which were brought to the attention of the different county societies, and I think that is a very good idea.

CHAIRMAN STEVENS: Is there any further discussion or are there further suggestions?

DR. RAYMOND L. TORREY of Searsport: I don't think the idea of saving time would work out because we have got extra meetings to attend, and we would have to put in more time on the other meetings than we would to hash things over here. But, I think it would make for better efficiency at this meeting, because the delegates are going to be informed beforehand as to what is to be taken up and the general situation of things that are to be discussed. Therefore, I think it will make possible the more intelligent conducting of the meeting, after we do get here. I am in favor of it, although it won't save time.

DR. ABBOTT J. FULLER of Pemaquid: When I was a delegate, I came here absolutely unprepared, not knowing what was going on. I am in favor of Dr. Smith's proposal because the Councilor will visit each county society once a year.

Therefore, I would make a motion that Dr. Smith's original idea that the Councilor of the District meet with the President and Secretary and the delegates and alternates of the county society and discuss proposed business before the regular meeting of the Maine Medical Association, be carried out.

DR. STEPHEN A. COBB: They have really got to go farther than that; they have got to have, not only the meeting, but they have got to get this thing down so that we won't be spending too much time, too many hours, in the House of Delegates. I am in favor of the general proposition.

So that we have got to be sure that we don't take up too much time at the House of Delegates' meetings in discussions.

A MEMBER: I talked with Dr. Smith about this; I thought that was his point. We take up too much time listening to these reports, when they can be

published in the JOURNAL. Nobody can criticize the efficiency and intelligent handling of these meetings at the present time; they are run like a steam-roller, but not on purpose; it is just that they are intelligently handled.

PRESIDENT P. L. B. EBBETT of Houlton: Some one spoke about a regular visit of the Councilor to the different societies. I should like to say that many of these matters do not come up before the Councilor has made his regular visit.

Of course, the different societies will have to be instructed as to what was going to come up, before they could discuss these things. That probably would be late in the year, before they would know all that was going to come up.

CHAIRMAN STEVENS: I wish to say, for the benefit of those members of the House of Delegates who may not know, that the matters brought up by Dr. Nickerson were really brought up yesterday by the Council meeting, and I think we can all agree that that has taken plenty of time. If you are going to consider that these things must be before the Council first, then the Council should have a much earlier meeting.

However, there is a motion before the House, which was made by Dr. Fuller and which was seconded.

Those who are in favor of the motion will please signify in the usual manner. Those opposed?

The motion was carried, with two dissenting votes.

CHAIRMAN STEVENS: Is there any further business to come before the meeting?

DR. ADAM P. LEIGHTON: I am just an interloper in the audience here, not being a delegate. But, there is one matter I should like to speak about and ask you for your aid.

As Secretary of the State Board of Registration in Medicine, I am asked daily to place men or to suggest places in which to practice.

Now, it is not within my province to write letters and try to get doctors to settle in Maine or at least in certain parts of Maine, and, between you and me, I don't know the places for them to go to. I have placed dozens of men in separate communities, where I knew men had died or moved away; but, it is now getting to the bothersome stage for me.

I write 300, 400 and 500 letters a year to doctors coming in to Maine, and wanting to go in the smaller communities.

Could not the Councilor of each District tell your Secretary about the places where doctors are needed so that I might refer them to the Secretary, even though I know he has plenty to do. The thing is really getting too much for me, and I keep writing more and more letters.

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to feel refreshed"*



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I would appreciate it if something could be done along that line to help the Board of Registration in Medicine.

CHAIRMAN STEVENS: That is a very fine suggestion.

DR. FRANK A. SMITH: This is very important. A short time ago, we lost a good man who might have come into the State. We needed him. But, Dr. Leighton did all he could, I know.

As time goes on, each one of us is going to find it harder and harder to do the work, and if we can get men here, by having smooth machinery working by which they can know at once an acceptable place to practice where they are most needed, it would be of great help.

I move that the Council take this matter up and consider it very seriously.

DR. CHARLES W. KINGHORN of Kittery: I think something definite should be done about that. Within the last three months, a man contacted me and wanted to practice. I wrote to everybody, including the State Department, and the answer to me was that there weren't any vacancies in the State of Maine.

DR. CARL E. RICHARDS: I wish to second the motion of Dr. Smith's. Five years ago, I came to Maine to the convention looking for a place to practice in Maine. I went through all this red tape of trying to find a place. After the convention was over, I toured the State and found one very acceptable place. I am sure if the war doesn't prohibit it, there will be others up here in the same predicament. With the proper help, I know they can find places.

CHAIRMAN STEVENS: Is there any further discussion on this motion? If not, all those who are in favor of the motion will please signify in the usual manner.

Upon a hand vote, the motion was carried.

CHAIRMAN STEVENS: Is there any further business to come before the meeting? If not, a motion is in order to adjourn.

A MEMBER: I move that we adjourn.



This motion was duly seconded and was carried.

(Whereupon, the Second Meeting of the House of Delegates was adjourned at 6.50 o'clock in the afternoon.)

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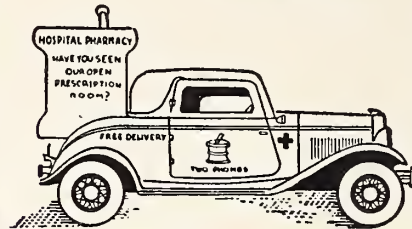
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